Form 3160-3 (August 2007)

5. Lease Serial No.

# UNITED STATES DEPARTMENT OF THE INTERIOR

BUREAU OF LAND MAN	UTU-73670					
APPLICATION FOR PERMIT TO I	6. If Indian, Allotee or Tribe Name N/A					
la. Type of work:	R			7 If Unit or CA Agreement, Name and No. Prickly Pear / UTU-79487		
lb. Type of Well: Oil Well Gas Well Other	Si	ngle Zone 🚺 Multip	ole Zone	8. Lease Name and Prickly Pear Unit I		-28D-12-15
2. Name of Operator Bill Barrett Corporation				9. API Well No. pending 73-007-31 362		
3a. Address 1099 18th Street, Suite 2300 Denver, CO 80202	3b. Phone No 303-312-8	). (include area code) 134		10. Field and Pool, or Undersignated/Wa	Explorator	y Dino Mile saverde
4. Location of Well (Report location clearly and in accordance with any	State requirem	ents.*)		11. Sec., T. R. M. or	Blk. and Sur	rvey or Area
At surface NWNE, 650' FNL, 1412' FEL				Sec. 28, T12S-R1	5E	
At proposed prod. zone NWNE, 632' FNL, 2432' FEL, Sec. 2	28					
14. Distance in miles and direction from nearest town or post office* approximately 50 miles from Myton, Utah				12. County or Parish Carbon County		13. State UT
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)		,		ng Unit dedicated to this well 40 acres		
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed 7700' MD	d Depth		BIA Bond No. on file vide Bond #WYB000040		
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approxim	mate date work will star	t*	23. Estimated duration		
7507' graded ground	06/01/200	8	45 days			
	24. Attac	hments			· · · · · · · · · · · · · · · · · · ·	
The following, completed in accordance with the requirements of Onshore	Oil and Gas	Order No.1, must be at	tached to thi	s form:		
<ol> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan.</li> </ol>		4. Bond to cover the Item 20 above).	ne operation	ns unless covered by ar	n existing b	ond on file (see
3. A Surface Use Plan (if the location is on National Forest System L SUPO must be filed with the appropriate Forest Service Office).	ands, the	the 5. Operator certification 6. Such other site specific information and/or plans as may be required by BLM.			equired by the	
25. Signature Sacus Fallana		Name (Printed/Typed) Tracey Fallang  Date 3/1/A			17/08	
Title Environmental Regulatory Analyst					<del>' - /</del>	- · · · · · · · · · · · · · · · · · · ·
Approved by Ysignapure	I	(Printed/Typed) RADLEY G	-	Date OS	:-11-08	
Title	Office	Offenvironmental manager				

conduct operations thereon. Conditions of approval, if any, are attached.

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 2)

\*(Instructions on page 2)

Surf

565390X 44801047 39.756220 -110236741

Federal Approval of this Action is Necessary

BHC Action is A 565080X 44001054 39.750259

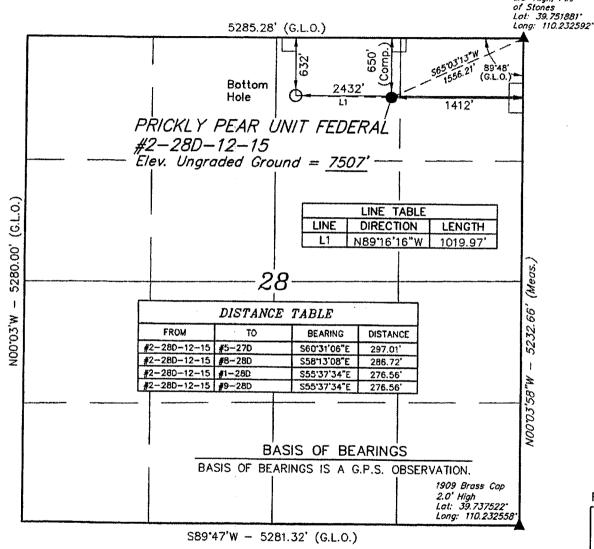
-110. 240361

**RECEIVED** 

MAR 1 0 2008

DIV. OF OIL, GAS & MINING

# T12S, R15E, S.L.B.&M.



# LEGEND:

= 90' SYMBOL

= PROPOSED WELL HEAD.

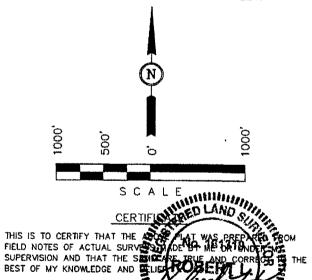
#### NAD 83 (TARGET BOTTOM HOLE) NAD 83 (SURFACE LOCATION) LATITUDE = 39'45'00.40" (39.750111) LONGITUDE = 110'14'28.44" (110.241233) LATITUDE = 39'45'00.28" (39.750078) LONGITUDE = 110'14'15.39" (110.237608) NAD 27 (TARGET BOTTOM HOLE) NAD 27 (SURFACE LOCATION) LATITUDE = 39"45"00.53" (39.750147) LATITUDE = 39"45"00.41" (39.750114) LONGITUDE = 110"14"25.88" (110.240522) LONGITUDE = 110"14"12.83" (110.236897) = SECTION CORNERS LOCATED. STATE PLANE NAD 27 (UTAH CENTRAL) STATE PLANE NAD 27 (UTAH CENTRAL) N: 518533.20 E: 2354103.88 N: 518535.27 E: 2355123.13

# BILL BARRETT CORPORATION

Well location, PRICKLY PEAR UNIT FEDERAL #2-28D-12-15, located as shown in the NW 1/4 NE 1/4 of Section 28, T12S, R15E, S.L.B.&M., Carbon County, Utah.

# BASIS OF ELEVATION

COTTON TRIANGULATION STATION LOCATED IN THE NW 1/4 OF SECTION 31, T12S, R16E, S.L.B.&M. TAKEN FROM THE TWIN HOLLOW QUADRANGLE, UTAH, CARBON COUNTY, 7.5 MINUTE SERIES (TOPOGRAPHICAL MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY SAID ELEVATION IS MARKED AS BEING 7386 FFFT.



REVISED: 02-21-08

1909 Brass Cop

0.6' High, Pile

# UINTAH ENGINEERING & LAND SURVEYING 85 SOUTH 200 EAST - VERNAL, UTAH 84078

REGISTRATIONE TOP VIEW

(435) 789-1017

SCALE 1" = 1000'	DATE SURVEYED: DATE DRAWN: 11-02-07 11-28-07
PARTY D.R. M.M. C.G.	REFERENCES G.L.O. PLAT
WEATHER COLD	FILE BILL BARRETT CORPORATION



March 5, 2008

Ms. Diana Mason State of Utah Division of Oil, Gas and Mining 1594 West North Temple, Suite 1210 P.O. Box 145801 Salt Lake City, Utah 84114-5801

RE:

Directional Drilling R649-3-11

Prickly Pear Unit Federal 2-28D-12-15

SHL: 650' FNL & 1412' FEL NWNE 28-T12S-R15E BHL: 632' FNL & 2432' FEL NWNE 28-T12S-R15E

Carbon County, Utah

Dear Ms. Mason:

Pursuant to the filing of Bill Barrett Corporation's ("BBC") Application for Permit to Drill ("APD") regarding the above referenced well, we are hereby submitting this letter in accordance with Oil & Gas Conservation Rule R649-3-11 pertaining to the "Exception to Location and Siting of Wells."

- The above-mentioned proposed location is within the Prickly Pear Unit Area;
- BBC is permitting this well as a directional well in order to minimize surface disturbance. By locating the well at the surface location and directionally drilling from this location, BBC will be able to utilize the existing road and pipelines in the area:
- BBC hereby certifies that it is the sole working interest owner within 460 feet of the entire directional well bore.

Based on the information provided, BBC requests that the permit be granted pursuant to R649-3-11. If you should have any questions or need further information, please contact me at 303-312-8129.

Sincerely

Doug Gundry-White

Senior Landman

MAR 1 0 2008

1099 18TH STREET SUITE 2300

DENVER, CO 80202

303.293.9100

DIV. OF OIL, GAS & MINING F 30

303.291.0420

# **DRILLING PROGRAM**

# BILL BARRETT CORPORATION Prickly Pear Unit Federal 2-28D-12-15

NWNE, 650' FNL, 1412' FEL, Sec. 28, T12S-R15E (surface hole) NWNE, 632' FNL, 2432' FEL, Sec. 28, T12S-R15E (bottom hole) Carbon County, Utah

# 1-3. Estimated Tops of Geological Markers and Formations Expected to Contain Water, Oil and Gas and Other Minerals

<u>Formation</u>	Depth - MD	Depth - TVD
Green River	Surface	Surface
Wasatch	3004**	2923'*
North Horn	4991'*	4833'*
Dark Canyon	6671'*	6513'*
Price River	6886'*	6728'*
TD	7700'*	7500'*

#### PROSPECTIVE PAY

\*Members of the Mesaverde formation and Wasatch formation (inclusive of the North Horn) are primary objectives for oil/gas.

#### 4. <u>Casing Program</u>

<u>Hole</u> <u>Size</u>	SETTING (FROM)	<u>G DEPTH</u> (TO)	<u>Casing</u> <u>Size</u>	<u>Casing</u> <u>Weight</u>	Casing Grade	Thread	Condition
12 ¼"	surface	1,000'	9 5/8"	36#	J or K 55	ST&C	New
8 3/4"	surface	7,600'	5 ½"	17#	N-80	LT&C	New
&							
7 7/8"							

Note: Pending evaluation of anticipated stress on the production casing, BBC may use 5 ½", 20# P-110 LT&C production casing instead of the 17# N-80. BBC is also evaluating the benefit of using 4-1/2", 11.6#, I-80, LT&C production casing and wishes to have that option approved in this APD. The 4-1/2" casing design sheet is included in this package. Cement volumes would be adjusted accordingly.

Note: 7 7/8" hole size will begin at the point the bit is changed.

#### 5. <u>Cementing Program</u>

9 5/8" Surface Casing	Approximately 240 sx Halliburton Light Premium with additives mixed at 12.7 ppg (yield = 1.85 ft <sup>3</sup> /sx) and 170 sx Premium cement with additives mixed at 15.8 ppg (yield = 1.16 ft <sup>3</sup> /sx) circulated to surface with 100% excess			
5 ½" Production Casing	Approximately 1500 sx 50/50 Poz Premium cement with additives mixed at 13.4 ppg (yield = $1.49 \text{ ft}^3/\text{sx}$ ). Top of cement to be determined by log and sample evaluation; estimated TOC 900°.			
Note: Actual volumes to be calculated from caliper log.				

Bill Barrett Corporation
Drilling Program
Prickly Pear Unit Federal #2-28D-12-15
Carbon County, Utah

# 6. Mud Program

<u>Interval</u>	<u>Weight</u>	Viscosity	Fluid Loss (API filtrate)	Remarks
0-40'	8.3 - 8.6	27 – 40		Native Spud Mud
40' – 1000'	8.3 - 8.6	27 – 40	15 cc or less	Native/Gel/Lime
1000' – TD	8.6 - 9.5	38 – 46	15 cc or less	LSND/DAP

Note: Sufficient mud materials to maintain mud properties, control lost circulation and to contain "kicks" will be available at wellsite. BBC may require minor amounts of diesel to be added to its fluid system in order to reduce tork and drag.

Note: Air drilling is not anticipated for this location. However, in the event air drilling should occur:

- Fresh water would be used to suppress the dust coming out. The blooie line, approximately 37' long and 6" diameter, would run from the pit to the wellhead. There is no ignition system as burnable gas should not be encountered.
- Capacity of compressor: 1250SCFM with an 1170 SCFM on standby, which would be located very near the wellbore. The compressor has switches to shut off should any problems be encountered.
- The rig has mud pumps capable of pumping the kill fluid (fresh water), of which there is 500 bbls on location at all times.

### 7. BOP and Pressure Containment Data

Depth Intervals	BOP Equipment							
0-1000'	No pressure control required							
1000' – TD	11" 3000# Ram Type BOP							
	11" 3000# Annular BOP							
- Drilling spool to accommodate choke and kill lines;								
- Ancillary equipme	- Ancillary equipment and choke manifold rated at 3,000#. All BOP and BOPE tests will be in							
accordance with the	accordance with the requirements of onshore Order No. 2;							
- The BLM and the State of Utah Division of Oil, Gas and Mining will be notified 24 hours in								
advance of all BOP pressure tests.								
- BOP hand wheels may be underneath the sub-structure of the rig if the drilling rig used is set up								
to operate most ef	ficiently in this manner.							

#### 8. <u>Auxiliary Equipment</u>

- a) Upper kelly cock; lower Kelly cock will be installed while drilling
- b) Inside BOP or stab-in valve (available on rig floor)
- c) Safety valve(s) and subs to fit all string connections in use
- d) Mud monitoring will be visually observed

Bill Barrett Corporation
Drilling Program
Prickly Pear Unit Federal #2-28D-12-15
Carbon County, Utah

# 9. Testing, Logging and Core Programs

Cores	None anticipated;
Testing	None anticipated;
Sampling	30' to 50' samples; surface casing to TD. Preserve samples all show intervals;
Surveys	Run every 1000' and on trips, slope only;
Logging	DIL-GR-SP, FDC-CNL-GR-CAL-Pe-Microlog, Sonic-GR, all TD to surface.

# 10. Anticipated Abnormal Pressures or Temperatures

No abnormal pressures or temperatures or other hazards are anticipated.

Maximum anticipated bottom hole pressure equals approximately 3705 psi\* and maximum anticipated surface pressure equals approximately 2055 psi\*\* (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

\*Max Mud Wt x 0.052 x TD = A (bottom hole pressure)

# 11. <u>Drilling Schedule</u>

**Location Construction:** 

June 1, 2008

Spud:

June 8, 2008

Duration:

15 days drilling time

30 days completion time

<sup>\*\*</sup>Maximum surface pressure =  $A - (0.22 \times TD)$ 

# **SURFACE USE PLAN**

# BILL BARRETT CORPORATION Prickly Pear Unit Federal #1-28-12-15 Pad Wells

Prickly Pear Unit Federal #5A-27D-12-15	Prickly Pear Unit Federal 16X-21D-12-15
NWNE, 648' FNL, 1380' FEL, Sec. 28, T12S-R15E (surface hole)	NWNE, 649' FNL, 1396' FEL, Sec. 28, T12S-R15E (surface hole)
1320' FNL, 660' FWL, Sec. 27, T12S-R15E (bottom hole)	SESE, 138' FSL, 899' FEL, Sec. 21, T12S-R15E (bottom hole)
Carbon County, Utah	Carbon County, Utah
Prickly Pear Unit Federal 2-28D-12-15	Prickly Pear Unit Federal 1A-28D-12-15
NWNE, 650' FNL, 1412' FEL, Sec. 28, T12S-R15E (surface hole)	NWNE, 648' FNL, 1364' FEL, Sec. 28, T12S-R15E (surface hole)
NWNE, 632' FNL, 2432' FEL, Sec. 28, T12S-R15E (bottom hole)	NENE, 523' FNL, 613' FEL, Sec. 28, T12S-R15E (bottom hole)
Carbon County, Utah	Carbon County, Utah

The onsite for this pad was conducted on December 11<sup>th</sup>. This is an existing pad with one vertical and three directional wells (the 1-28-12-15, 5-27D, 8-28D, 9-28D) and four additional directional wells are planned.

The excavation contractor would be provided with an approved copy of the surface use plan of operations before initiating construction.

#### 1. Existing Roads:

- a. The existing well pad is located approximately 50 miles from Myton, Utah. Maps reflecting directions to the proposed well pad are included (see Topographic Maps A and B).
- b. An access road, approximately 1800' in length, exists to this pad. Total road disturbance requested for this access is 50-feet.
- c. Surface disturbance and vehicular travel would be limited to the approved existing access road. Adequate signs would be posted, as necessary, to warn the public of project related traffic.
- BBC would be responsible for all maintenance of the access road including drainage structures.
- e. The use of roads under State and County Road Department maintenance is necessary to access the Prickly Pear Unit. However, an encroachment permit is not anticipated since there are no upgrades to the State or County road systems are proposed at this time.
- f. All existing roads would be maintained and kept in good repair during all phases of operation.
- g. Vehicle operators would obey posted speed restrictions and observe safe speeds commensurate with road and weather conditions.

#### 2. Planned Access Road:

a. A new access road, approximately 170 feet, would be needed to access these additional wells to avoid the existing wellheads and facilities on the pad. A road design plan is not anticipated at this time.

- b. The access road would consist of an 18 foot travel surface within a 32 foot disturbed area. The proposed access has been placed to minimize impact to the environment and natural drainage of the area.
- c. BLM approval to construct this access road is requested with this application.
- d. A maximum grade of 10% would be maintained throughout the project with minimal cuts and fills, as necessary, to access the wells on the pad.
- e. The access road would be constructed using standard equipment and techniques. Bulldozers and/or road graders would first clear vegetation and topsoil from the ROW. These materials may be windrowed for future redistribution during the reclamation process. The surface would be crowned to facilitate drainage to a borrow ditch on each side of the road designed to minimize erosion potential. Following completion of the wells on this pad, graveling or capping the roadbed may be performed as necessary to provide a well constructed, safe road.
- f. No turnouts are proposed, good site distance exists along this road
- g. Adequate drainage structures would be incorporated, where necessary.
- h. No surfacing material would come from Indian lands or off-lease Federal lands. BBC requests that any excess rock from construction of the pad be used for surfacing of the access road, if necessary. Any additional materials needs may come from either existing SITLA Materials Permits or from federal wells within the Prickly Pear unit.
- i. No gates or cattle guards are anticipated at this time.
- j. Surface disturbance and vehicular travel would be limited to the approved location access road. Adequate signs would be posted, as necessary, to warn the public of project-related traffic.
- k. All access roads and surface disturbing activities would conform to the appropriate standard, no higher than necessary, to accommodate their intended function adequately as outlined in the Bureau of Land Management and Forest Service publication: <u>Surface Operating Standards for Oil and Gas Exploration and Development, Fourth Edition Revised 2007.</u>
- The operator would be responsible for all maintenance of the access road including drainage structures.
- 3. <u>Location of Existing Wells (see Topographic Map C):</u>
  - a. Following is a list of wells with surface hole locations within a one-mile radius of the proposed well:

i.	water wells	none
ii.	injection wells	none
iii.	disposal wells	none
iv.	drilling wells	none
v.	temp shut-in wells	none
vi.	producing wells	thirteen
vii.	abandoned wells	none

#### 4. <u>Location of Production Facilities (see enclosed "Proposed Facility Layout"):</u>

- a. All facilities for this pad would be located adjacent to the existing facilities for the Prickly Pear 1-28 pad, as noted on the enclosed diagram (some permanent structures/facilities may be shared). Each well would have its own meter run and separator and five (5) 400bbl tanks additional tanks would be installed as necessary.
- b. In order to allow safe simultaneous drilling and completion operations and to minimize pad size, wellheads and christmas trees may be positioned below location grade in a precast concrete vault measuring approximately 12' wide, 10' deep, and 64' long. Other than when drilling is occurring and when necessary well servicing is being conducted, the vault would be covered with a grate and/or isolated by fencing.
- c. All permanent above-ground structures would be painted a flat, non-reflective Olive Black to match the standard environmental colors. All facilities would be painted the designated color at the time of installation. Facilities required to comply with the Occupational Safety and Health Act (OSHA) may be excluded.
- d. Site security guidelines identified in 43 CFR 3162.7-5 and Onshore Oil and Gas Order No. 3 would be adhered to.
- e. Gas meter runs would be constructed and located on lease within 500 feet of the wellheads. Meter runs are housed and/or fenced. All gas production and measurement shall comply with the provisions of 43 CFR 3162.7-3, Onshore Oil and Gas Order No. 5, and American Gas Association (AGA) Report No. 3. Use of electronic flow meter (EFMs) for gas measurement purposes is requested with this application as well as use of flow conditioners (versus straightening vanes) for each new well.
- f. A tank battery exists on this lease and would be modified as per the proposed facility layout to include additional equipment. All loading lines and valves would be placed inside the berm surrounding the tank battery or would have a secondary containment vessel. All liquid hydrocarbon production and measurement shall conform to the provisions of 43 CFR 3162.7-2 and Onshore Oil and Gas Order No. 4 for the measurement of oil. BBC requests permission to install the necessary production/operation facilities with this application.
- any necessary pits would be properly fenced to prevent any wildlife and livestock entry.
- h. All access roads would be maintained as necessary to prevent erosion and accommodate year-round traffic as practicable. The roads would be maintained in a safe, useable condition.
- The site would require periodic maintenance to ensure that drainages are kept open and free of debris and that surfaces are properly treated to reduce erosion, fugitive dust, and impacts to adjacent areas.
- j. A 6-inch gas pipeline exists to this location, with 1000' being surface-laid due to soil conditions and 1500' being buried. The pipeline lies south of the existing access road and ties in to the existing 8" pipeline off the Prickly Pear 15-21-12-15 pad in the S/2 of Section 21-T12S-R15E. BBC would require approximately 170 feet of new pipeline (up to 10 inch diameter) for the additional wells being added to the pad (see Topographic Map D for proposed route) and approval for installation is being requested at this time.

- k. The proposed steel gas pipeline would be buried, where soil conditions permit, within a 50 foot proposed corridor.
- As referred to in (k). above, the line would not be buried in areas with bedrock at or near surface that would require blasting to loosen rock before excavation for burial of the pipeline.
- m. The determination to bury or surface lay the pipeline would be made by the Authorized Officer at the time of construction.
- n. BBC intends on stringing the pipeline on the surface, welding many joints into long lengths, dragging the long lengths into position and then completing a final welding pass to join the long lengths together. The welded joints would either remain on the surface or would be placed within the trench, depending on the scenario. BBC intends on connecting the pipeline together utilizing conventional welding technology.

#### 5. <u>Location and Type of Water Supply:</u>

- a. Bill Barrett Corporation would use water consistent with approvals granted by the Utah State Engineer's Office under Application Number 90-1846 (T76109) which expires March 27, 2008 (renewal application applied for) or an existing water well in Sec. 13, T12S-R14E granted by the Utah State Engineer's Office under Application Number 90-1849 (T75896) which expires September 13, 2008.
- b. Water use for this location would most likely be diverted from Nine Mile Creek, the N¼ of Section 3, T12S-R14E. Bobtail trucks would haul the water, traveling Prickly Pear road to Harmon Canyon, traveling north to this point of diversion.

### 6. Source of Construction Material:

- a. The use of materials would conform to 43 CFR 3610.2-3.
- b. No construction materials would be taken off-lease.
- c. If any additional gravel is required, it would be obtained from SITLA materials permits or from federal BBC locations within the Prickly Pear unit.

#### 7. Methods of Handling Waste Disposal:

- All wastes associated with this application would be contained and disposed of utilizing approved facilities.
- b. Drill cuttings would be contained and buried on site.
- c. The reserve pit would be located outboard of the location along the north side of the pad.
- d. The reserve pit would be constructed so as not to leak, break or allow any discharge.
- e. If necessary, the reserve pit would be lined with 12 mil minimum thickness polyethylene nylon reinforced liner material. The liner would overlay straw, soil and/or bentonite if rock is encountered during excavation. The pit liner would overlap the pit walls and be anchored with soil and/or rocks to hold it in place. No trash, scrap pipe, etc., that could

puncture the liner would be disposed of in the pit. Pit walls would be sloped no greater than 2:1 and the depth of the reserve pit would be approximately 8-feet with a minimum of 2 foot freeboard.

- f. The reserve pit has been located in cut material. Three sides of the reserve pit would be fenced before drilling starts. The fourth side would be fenced as soon as drilling is completed and shall remain until the pit is dry. After the reserve pit has dried, all areas not needed for production would be rehabilitated as per the plans for reclamation of surface (10. below).
- g. Chemicals on the EPA's Consolidated List of Chemicals subject to reporting under Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) in quantities over 10,000 pounds that may be used, produced, stored, transported or disposed of annually in association with the drilling, testing or completion of each well include diesel fuel, hydrochloric acid and silica sand. This material would be consumed in the drilling and completion process. No extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities would be used, produced, stored, transported or disposed of in association with the drilling, testing or completion of the wells.
- h. Trash would be contained in a trash cage or roll-off container and hauled away to an approved disposal site as necessary but no later than at the completion of drilling operations. The contents of the trash container would be hauled off periodically to the approved Carbon or Uintah County Landfill.
- i. Produced fluids from each well other than water would be produced into a test tank until such time as construction of production facilities is completed. Any spills of oil, gas, salt water or other produced fluids would be cleaned up and removed.
- j. After initial clean-up and based on volumes, BBC would install a tank (maximum size 400 barrel capacity) to contain produced waste water. After first production, produced wastewater would be confined to a lined pit or storage tank for a period not to exceed ninety (90) days. Thereafter, produced water would be used in further drilling and completion activities, evaporated in the pit, or hauled to a State approved disposal facility.
- k. Any salts and/or chemicals, which are an integral part of the drilling system, would be disposed of in the same manner as the drilling fluid.
- Sanitary facilities would be on site at all times during operations. Sewage would be
  placed in a portable chemical toilet and the toilet replaced periodically utilizing a licensed
  contractor to transport by truck the portable chemical toilet so that its contents can be
  delivered to the Price or Vernal Wastewater Treatment Facility in accordance with state
  and county regulations.
- m. Any liquid hydrocarbons produced during completion work would be contained in test tanks on the well location. The tanks would be removed from location at a later date.
- n. A flare pit may be constructed a minimum of 110' from the wellheads and may be used during completion work. In the event a flare pit proves to be unworkable in this situation, a flare stack would be installed. BBC would flow back as much fluid and gas as possible into vessels, separating the fluid from the gas. The fluid would then be either returned to the reserve pit or placed into a tank. Gas would be then directed into the flare pit or the flare stack with a constant source of ignition. This should assist in eliminating any fires in

and around the reserve pit. Natural gas would be directed to the pipeline as soon as pipeline gas quality standards are met.

o. Hydrocarbons would be removed from the reserve pit as soon as practical. In the event immediate removal is not practical, the reserve pit would be flagged overhead or covered with wire or plastic mesh to protect migrating birds.

#### 8. Ancillary Facilities:

a. Garbage containers and portable toilets are the only ancillary facilities proposed in this application

#### 9. Well Site Layout:

- a. Each well would be properly identified in accordance with 43 CFR 3162.6.
- b. The rig layout and cross section diagrams are enclosed (see Location Layout and Cross Section Plats).
- c. The pad and road designs are consistent with BLM specifications.
- d. The additional disturbance to the existing Prickly Pear 1-28 pad to accommodate the additional wells being added is approximately 1.6 acres. The pad dimensions are 472' x 172' with a reserve pit of 200' x 100'.
- e. All surface disturbing activities would be supervised by a qualified, responsible company representative who is aware of the terms and conditions of the APD and specifications in the approved plans.
- f. All cut and fill slopes would be such that stability can be maintained for the life of the activity.
- g. Diversion ditches would be constructed, if necessary, around the well pad to prevent surface waters from entering the area.
- h. The stockpiled topsoil (first 6 inches or maximum available) would be stored in a windrow on the uphill side of the location to prevent any possible contamination. All topsoil would be stockpiled for reclamation in such a way as to prevent soil loss and contamination.
- i. Pits would remain fenced until site cleanup.
- j. If air drilling occurs, the blooie line would be located at least 100 feet from the individual well head and would run from the each wellhead directly to the pit.
- Water application may be implemented if necessary to minimize the amount of fugitive dust

#### 10. Plan for Restoration of the Surface:

#### **Producing Wells**

- a. Rat and mouse holes would be filled and compacted from bottom to top immediately upon release of the drilling rig from location.
- b. Two reserve pits would be located on this pad, one existing and one proposed for these additional four wells. The existing pit would be closed immediately, when weather conditions permit. The new reserve pit would be closed as soon as reasonably practical, but no later than 90 days from completion of the last well on the pad, provided favorable weather conditions and that there are no plans to re-use the pit within one year. An extension may be given at the discretion of the BLM Authorized Officer. The following are requirements for pit closures:
  - Squeezing of pit fluids and cuttings is prohibited;
  - Pits must be dry of fluids or they must be removed via vac-truck or other environmentally acceptable method prior to backfilling, re-contouring and replacement of topsoil;
  - Mud and cuttings left in pit must be buried at least 3-feet below re-contoured grade;
  - If a liner was used, the polyethylene nylon reinforced liner shall be torn and perforated before backfilling;
  - The operator would be responsible for re-contouring any subsidence areas that develop from closing a pit before it is sufficiently dry.
  - The operator shall contact the BLM Authorized Officer at least 48-hours prior to the filling and reclamation of pits and the start of any reclamation such as recontouring and reseeding.
- c. Reclamation requirements would be dependent upon plans for subsequent drilling activity on the pad. The operator shall contact the BLM Authorized Officer within 60 days of completion of the last well on the pad and provide plans for subsequent pad use.
  - In the event that the operator plans to re-occupy the pad within three years, the operator shall seed the unused portions of the pad with a cover crop as approved for this use by the BLM. If necessary, this cover crop would be replanted each year that the pad remains in an un-reclaimed state. Unless otherwise specifically authorized, no pad shall remain in an un-reclaimed state for more than three years.
    - Cover crops would be seeded by broadcasting seed over all unused portions of the pad. Seed would be covered with soil to the appropriate depth by raking or other methods.
  - In the event there are no plans to re-occupy the pad within three years, interim reclamation activities would begin within 90 days according to the Proposed Facility Layout/Reclamation Diagram and Reclamation Plan attached (assuming favorable weather conditions). The operator would use the BLM approved seed mix and would seed during the first suitable seeding season.
    - o Interim reclamation drill seeding would be conducted on the contour to a depth of 0.5 inch, followed by cultipaction to compact the seedbed,

preventing soil and seed losses. To maintain quality and purity, the current years tested, certified seed with a minimum germination rate of 80% and a minimum purity of 90% would be used.

- Topsoil salvaged from the drill site and stored for more than one year would be placed at the location indicated on the well site layout drawing and graded to a depth optimum to maintain topsoil viability, seeded with the BLM prescribed seed mixture and covered with mulch for protection from wind and water erosion and to discourage the invasion of weeds.
- d. The operator would control noxious weeds along access road use authorizations, pipeline route authorizations, well sites or other applicable facilities by spraying or mechanical removal. A list of noxious weeds may be obtained from the BLM or the appropriate county extension office. On BLM administered land it is required that a Pesticide Use Proposal be submitted and approved prior to the application of herbicides, pesticides or possibly hazardous chemicals.

#### Drv Hole

a. All disturbed lands associated with this project, including the pipelines, access roads, water management facilities, etc. would be expediently reclaimed and reseeded in accordance with the reclamation plan and any pertinent site-specific COAs.

#### 11. Surface and Mineral Ownership:

- a. Surface ownership Federal under the management of the Bureau of Land Management Price Field Office, 125 South 600 West, Price Utah 84078; (435) 636-3600.
- b. Mineral ownership Federal under the management of the Bureau of Land Management
   Price Field Office, 125 South 600 West, Price Utah 84078; (435) 636-3600.

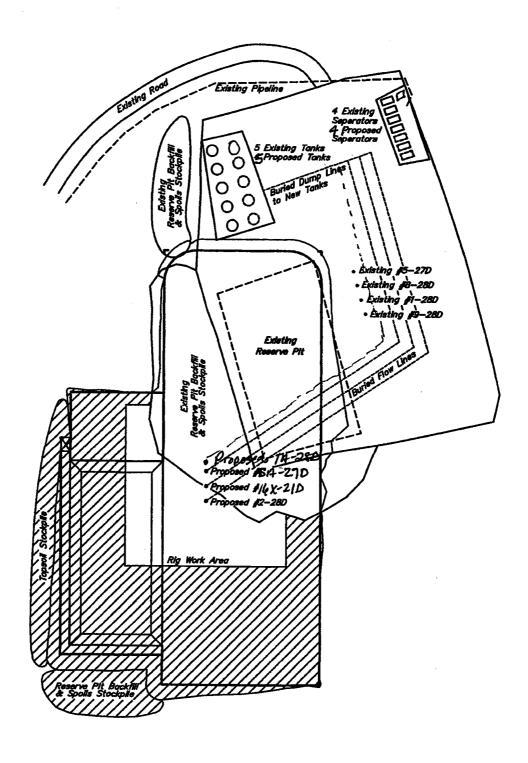
#### 12. Other Information:

- a. Montgomery Archaeological Consultants conducted Class III archeological surveys. Copies of the reports were submitted under separate cover to the appropriate agencies by Montgomery as MOAC Report No. 06-486 dated September 18, 2006 and MOAC 06-486B dated November 27, 2007.
- b. BBC would identify areas in the proposed drilling program where fluids escaping the wellbore and exiting onto a hillside might occur. In those cases, BBC would be ready with cement and/ or fluid loss compounds (types of lost circulation fluids) to heal up vags and cracks. Upon individual evaluation of the proposed well sites, BBC may air drill the hole to surface casing depth if necessary.
- c. A combustor may be installed at this location for control of associated condensate tank emissions. A combustor ranges from 24" to 48" wide and is approximately 10' tall. Combustor placement would be on existing disturbance and would not be closer than 100' to any tank or wellhead.

# PRODUCTION FACILITY LAYOUT FOR



SCALE: 1" = 100' DATE: 01-18-08 DRAWN BY: C.G. PRICKLY PEAR UNIT FEDERAL #1-28-12-15 PAD SECTION 28, T12S, R15E, S.L.B.&M.
NW 1/4-NE 1/4



UINTAH ENGINEERING & LAND SURVEYING 85 So. 200 East \* Vernal, Utah 84078 \* (435) 789-1077

# **OPERATOR CERTIFICATION**

#### Certification:

I hereby certify that I, or someone under my direction supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein would be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filings of false statements.

Hay of Executed this Name: Tracey Fallang Position Title: Regulatory Analyst 1099 18th Street, Suite 2300, Denver, CO 80202 Address: 303-312-8134 Telephone: Field Representative Fred Goodrich Address: 1820 W. Hwy 40, Roosevelt, UT 84066 Telephone: 435-725-3515 E-mail:

Tracey Fallang, Environmental/Regulatory Analyst

Well name:

Utah: West Tavaputs Field

Operator:

String type:

Bill Barrett Surface

Location:

Carbon County, UT

Design is based on evacuated pipe.

Design parameters:

Collapse

Mud weight;

9.50 ppg

Minimum design factors:

Collapse:

Design factor

Environment:

H2S considered?

Surface temperature: Bottom hole temperature:

Temperature gradient:

Minimum section length:

No 75.00 °F

89 °F 1.40 °F/100ft

1.000 ft

Burst:

Design factor

1.00

1.125

Cement top:

Surface

Burst

Max anlicipated surface

pressure:

2,735 psi

Internal gradient: Calculated BHP

Annular backup:

0.22 psi/ft 2,955 psi

9.50 ppg

Tension:

8 Round STC: 1.80 (J)

8 Round LTC:

7.80 (J) 1.80 (J)

Butiress: Premium:

1.80 (J

1.80 (B) Body viela:

Tension is pased on buoyed weigh: Neutral point:

859 ft

Non-directional string.

Re subsequent strings:

Next setting depth:

Next mud weight:

Next setting BHP:

\$.500 ppg. ⊲,935 psi 10.000 ppg

10.000 ft

Fracture mud wt: Fracture depth:

10,000 8

Injection pressure

5,195 psr

	Run	Segment	100	Nominal		End	True Vert	Measured	Drift	internal
,	Seq	Length (ft)	Size (ìn)	Weight (lbs/ft)	Grade	Finish	Depth (ft)	Depth (ft)	Diameter (In)	Capacity (ff²)
	and the same	1000	9.625	36.00	J/K-55	ST&C	1000	1000	8.796	71.2
	Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
	1	493	2020	4.094	2735	3520	1.29	31	453	14.64 J

Prepared Dominic Spencer by: Bill Barrett

Phone: (303) 312-8143 FAX: (303) 312-8195

Date: August 1,2003 Denver, Colorado

Remarks:

Collegue is based on a vertical depth of 1000 ft, a mud weight of 9.5 ppg. The casing is considered to be evacuated for collegue purposes. Collapse strength is based on the Westcott, Duniop & Kemler method of blaxiel correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser,

WeR name:

Utah: West Tavaputs

Operator. String type: Bill Barrett

Production

Carbon County, UT

Design is based on evacuated pipe.

Design parameters:

Collapse

Mud weight:

9.50 ppg

Minimum design factors:

Collapse:

Design factor

1.125

Environment:

H2S considered? Surface temperature: Bottom hale temperature:

75.00 °F 215 °F 1.40 °F/100ff

No

Temperature gradient: Minimum section length:

1,500 ft

Burst:

Design factor

1.00

Cement top:

2.375 ft

Burst

Max anticipated surface

pressure: Internal gradient. Calculated BHP

Annular backup:

4,705 psi 0.02 psi/ft 4,935 psi

9.50 ppg

8 Round STC: 8 Round LTC:

Tension:

Buttress: Premium:

1.80 (J) 1.80 (J)

1.80 (J) 1.80 (J)

1.80 (B)

Non-directional string.

Body yield:

Tension is based on buoved weight.

Neutral pain:

2.550

Run	Seament		Nominal		Eng	True Vert	Measured	Drift	Internal	
Sec	cength (ft)	Size (in)	Weight (lbs/ft)	Grade	Finish	Depth (ft)	Depth (ft)	Diameter (in)	Capacity - (ft³)	
ĩ	10000	5,5	17.00	N-80	LT&C	10000	70000	4.767	344.6	
Run	Coliapse	Colianse	Collapse	Burst	Burst	Burst	Tension	Tension	Tension	
Set	Load	Strength	Design	Load	Strength	Design	Lozd	Strength	Design	
•	(psi)	(asī)	Factor	(psi)	(psl)	Factor	(Kips)	(Kips)	Factor	
4	4095	6200	4 275	1705	7740	1.55	146	34R	2.39./	

Prepared Dominic Spencer by: Bill Barrett

Phone: (303) 312-8143 FAX: (303) 312-8195

Date: August 1,2003 Denver, Colorado

Colleges is based on a vertical depth of 10000 ft. a mud weight of 3.5 ppg. The casing is considered to be evacuated for colleges purposes. Colleges strength is based on the Westcott. Dunlop & Kemier method of biexist correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

Well name:

West Tavaputs General

Operator:

Bill Barrett

Design is based on evacuated pipe.

String type:

Production

Location:

Carbon County, Utah

Design parameters:

Minimum design factors:

Environment:

Collapse

Collapse:

1.125

H2S considered? Surface temperature:

No 75.00 °F

9.50 ppg Design factor Mud weight;

Bottom hole temperature:

189 °F

Temperature gradient:

1.40 °F/100ft

Minimum section length:

1.500 ft

Burst:

Design factor

1.00 Cement top: 2.500 ft

Burst

Max anticipated surface

pressure:

2,226 psi 0.22 psifft

Catculated BHP

Tension:

Directional Info - Build & Drop

internal gradient:

4,015 psi

8 Round STC: 1.80 (J) 1.80 (J)

Kick-off point

-200

1000 II

8 Round LTC: Buliress: Premium:

Body yield:

1.60 (J) 1.50 (J) 1.50 (B) Departure at shoe: Maximum dogleg: inclination at shoe: 2165 fi 2 1100E 0 .

No backup mud specified.

Tension is based on buoyed weight. Neutral point: 7.550 ft

Drift interna! Segmen: Nomina! End True Vort Measured Run Diameter Capacity Depth Depth Length Siz= Weight Grade Finish Seg (lbs/ft) (fi)(ft) fin)(tt') (ft)(in) 353.3 4.653 8730 5.5 20.00 P-110 LT&C 8138 8730 1 Tension Tension Collapse Collapse Collapse Burst Burst Burst Tension Run Strength Design Desian Load Strength Load Seq Load Strength Design (psl) Factor (Kips) (Kips) Factor (psl) (psi) Factor (05!) 3.93 J 548 4016 11100 2.764 4016 12630 3.14 139

Prepared Dominic Spencer

by: Bitt Barrett Corporation

Phone: (303) 312-8143

FAX: (303) 312-8195

Date: August 25,2004 Denver, Colorado

Collapse is based on a vertical depth of 8138 ft. a mud weight of 9.5 ppg. The casing is considered to be evacuated for collapse purposes. Collegue strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biexially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a tensile load which is added to the axial load.

Engineering responsibility for use of this design will be that of the purchaser.

Well name:

Operator:

Bill Barrett Corporation

String type:

Production

Design parameters:

Collapse

Mud weight:

9.50 ppg

Design is based on evacuated pipe.

Minimum design factors:

West Tavaputs General

Collapse:

Design factor

1.125

Environment:

H2S considered?

Surface temperature:

No 60.00 °F

Bottom hole temperature:

Temperature gradient: Minimum section length:

1.40 °F/100ft 1,500 ft

Cement top:

2,500 ft

200 °F

Burst:

Design-factor

1.00

Burst

Max anticipated surface

No backup mud specified.

pressure:

2,735 psi

Internal gradient:

0.22 psi/ft

Calculated BHP

4,935 psi

Buttress:

Premium; Body yield:

Tension: 8 Round STC:

8 Round LTC: 1.80 (J) 7.80 (J) 1.80 (3) 1.80 (B)

Tension is based on buoyed weight.

Neutral point;

8,580 ft

1.80 (4)

Non-directional string.

Run Seg	Segment Length (ff)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	internal Capacity (ft²)
4	10000	4.5	17.60	<b>/-8</b> 0	LT&C	10000	10000	3.875	231.8
Run Seq	Collapse Load (psi) 4935	Collapse Strength (psi) 6350	Collapse Design Factor 1.287	Burst Load (psl) 4935	Burst Strength (psi) 7780	Burst Design Factor 1.58	Tension Load (Kips) 100	Tension Strength (Kips) 223	Tension Design Factor 2.24 J

Prepared Dominic Spencer by: Bill Barrett

. Phone: (303) 312-8143 FAX: (303) 312-8195

Date: December 13,2005 Denver, Colorado

Collapse is based on a vertical depth of 10000 ft, a mud weight of 9.5 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.



# NINE MILE CEMENT VOLUMES

Well Name:

Prickly Pear Unit Federal 2-28D-12-15

#### Surface Hole Data:

Total Depth:	1,000'
Top of Cement:	0'
OD of Hole:	12.250"
OD of Casing:	9.625"

#### Calculated Data:

Lead Volume:	219.2	ft <sup>3</sup>
Lead Fill:	700'	
Tail Volume:	94.0	ft <sup>3</sup>
Tail Fill:	300'	

#### Cement Data:

Lead Yield:	1.85	ft <sup>3</sup> /sk
Tail Yield:	1.16	ft <sup>3</sup> /sk
% Excess:	100%	

#### Calculated # of Sacks:

# SK's Lead:	240
# SK's Tail:	170

#### **Production Hole Data:**

Total Depth:	7,700'
Top of Cement:	900'
OD of Hole:	8.750"
OD of Casing:	5.500"

#### Calculated Data:

Lead Volume:	1717.6	ft <sup>3</sup>	1
Lead Fill:	6,800'		

# Cement Data:

Lead Yield:	1.49	ft <sup>3</sup> /sk
% Excess:	30%	

# Calculated # of Sacks:

# SK's Lead: 1500

# Prickly Pear Unit Federal 2-28D-12-15 Proposed Cementing Program

Job Recommendation		Su	rface Casing
Lead Cement - (700' - 0')			:
Halliburton Light Premium	Fluid Weight:	12.7	lbm/gal
2.0% Calcium Chloride	Slurry Yield:	1.85	ft <sup>3</sup> /sk
0.125 lbm/sk Ploy-E-Flake	Total Mixing Fluid:	9.9	Gal/sk
	Top of Fluid:	Ο'	
	Calculated Fill:	700'	
	Volume:	78.09	bbl
	Proposed Sacks:	240	sks
Tail Cement - (1000' - 700')			
Premium Cement	Fluid Weight:	15.8	lbm/gal
94 lbm/sk Premium Cement	Slurry Yield:	1.16	ft <sup>3</sup> /sk
2.0% Calcium Chloride	Total Mixing Fluid:	4.97	Gal/sk
0.125 lbm/sk Ploy-E-Flake	Top of Fluid:	700'	
	Calculated Fill:	300'	
	Volume:	33.47	bbl
	Proposed Sacks:	170	sks

Job Recommendation		Produc	tion Casing
Lead Cement - (7700' - 900')			
50/50 Poz Premium	Fluid Weight:	13.4	lbm/gal
3.0 % KCL	Slurry Yield:	1.49	ft <sup>3</sup> /sk
0.75% Halad®-322	Total Mixing Fluid:	7.06	Gal/sk
3.0 lbm/sk Silicalite Compacted	Top of Fluid:	900'	I
0.2% FWCA	Calculated Fill:	6,800'	
0.125 lbm/sk Poly-E-Flake	Volume:	397.67	bbl
1.0 lbm/sk Granulite TR 1/4	Proposed Sacks:	1500	sks



#### Planning Report

Database:

Compass

Company:

BILL BARRETT CORP

Project:

CARBON COUNTY, UT (NAD 27)

Site: Well:

**SECTION 28 T12S R15E** PR PR UF 2-28D-12-15

Wellbore:

PR PR UF 2-28D-12-15

Design:

Design #1

Local Co-ordinate Reference:

**TVD Reference:** 

MD Reference: North Reference:

**Survey Calculation Method:** 

Well PR PR UF 2-28D-12-15

KB @ 7522.00ft

KB @ 7522.00ft

True

Minimum Curvature

Project

CARBON COUNTY, UT (NAD 27)

Map System: Geo Datum:

US State Plane 1927 (Exact solution) NAD 1927 (NADCON CONUS)

Map Zone:

Utah Central 4302

System Datum:

Mean Sea Level

Using geodetic scale factor

Site

From:

Well

SECTION 28 T12S R15E, SECTION 28

Site Position:

Lat/Long

Northing: Easting:

518,535.457 ft

Latitude:

39° 45' 0.410 N

**Position Uncertainty:** 

0.00 ft

Slot Radius:

2,355,123.154ft

Longitude:

110° 14' 12.8300 W

**Grid Convergence:** 

0.81°

PR PR UF 2-28D-12-15

**Well Position** 

+N/-S +E/-W

0.00 ft 0.00 ft

Northing: Easting:

518.535.457 ft 2,355,123.154 ft Latitude: Longitude: 39° 45′ 0.410 N

**Position Uncertainty** 

0.00 ft

Wellhead Elevation:

**Ground Level:** 

110° 14' 12.8300 W 7,505.00 ft

Wellbore

PR PR UF 2-28D-12-15

Magnetics

Model Name

Sample Date

Declination

(°)

Dip Angle (°)

Field Strength (nT)

BGGM2007

2/22/2008

11.77

65.60

52,387

Design

Design #1

**Audit Notes:** 

Version:

Phase:

PLAN

Tie On Depth:

Vertical Section:

Depth From (TVD) (ft)

0.00

+N/-S (ft) 0.02

+E/-W (ft) 0.00

0.00

Direction (°) 270.68

Plan Sections			,							
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	
1,060.00	0.00	0.00	1,060.00	0.02	0.00	0.00	0.00	0.00	0.00	
1,837.10	19.43	270.68	1,822.29	1.58	-130.48	2.50	2.50	0.00	270.68	
4,019.18	19.43	270.68	3,880.14	10.23	-856.21	0.00	0.00	0.00	0.00	
4,990.55	0.00	0.00	4,833.00	12.17	-1,019.31	2.00	-2.00	0.00	180.00	
7,470.55	0.00	0.00	7,313.00	12.17	-1,019.31	0.00	0.00	0.00	0.00	PBHL_PR PR 2-280



# Planning Report

Database: Compass

Company: Project: BILL BARRETT CORP

Project: Site: CARBON COUNTY, UT (NAD 27) SECTION 28 T12S R15E

Well: Wellbore: PR PR UF 2-28D-12-15 PR PR UF 2-28D-12-15 Local Co-ordinate Reference:

TVD Reference:

North Reference: Survey Calculation Method: Well PR PR UF 2-28D-12-15

KB @ 7522.00ft KB @ 7522.00ft

True

Minimum Curvature

/ellbore: esign:	PR PR UF 2-2 Design #1	28D-12-15							
anned Survey				<del></del>					
Measured Depth	l Inclination	A	Vertical	<u></u>		Vertical	Dogleg	Build	Turn
(ft)	(°)	Azimuth (°)	Depth (ft)	+N/-S (ft)	+E/-W (ft)	Section (ft)	Rate (°/100ft)	Rate (°/100ft)	Rate (°/100ft)
1,060.0	0.00	0.00	1,060.00	0.02	0.00	0.00	0.00	0.00	0.00
Start Bui									
1,100.0		270.68	1,100.00	0.03	-0.35	0.35	2.50	2.50	0.00
1,200.0		270.68	1,199.91	0.07	-4.27	4.27	2.50	2.50	0.00
1,300.0	00 6.00	270.68	1,299.56	0.17	-12.55	12.55	2.50	2.50	0.00
1,400.0	00 8.50	270.68	1,398.75	0.32	-25.17	25.17	2.50	2.50	0.00
1,500.0		270.68	1,497.30	0.52	-42.10	42,11	2.50	2.50	0.00
1,600.0		270.68	1,595.02	0.78	-63.32	63.32	2.50	2.50	0.00
1,700.0		270.68	1,691.71	1.08	-88.78	88.78	2.50	2.50	0.00
1,800.0		270.68	1,787.21	1.43	-118.42	118.43	2.50	2.50	0.00
•									
1,837.1		270.68	1,822.29	1.58	-130.48	130.49	2.50	2.50	0.00
	2.09 hold at 1837.10								
1,900.0		270.68	1,881.61	1.83	-151.40	151.41	0.00	0.00	0.00
2,000.0		270.68	1,975.92	2.22	-184.66	184.67	0.00	0.00	0.00
2,100.0	00 19.43	270.68	2,070.23	2.62	-217.92	217.93	0.00	0.00	0.00
2,200.0	00 19.43	270.68	2,164.53	3.02	-251.18	251.19	0.00	0.00	0.00
2,300.0	00 19.43	270.68	2,258,84	2.44	204.42	004.40	0.00		
2,400.0		270.68	•	3.41	-284.43	284.46	0.00	0.00	0.00
2,500.0			2,353.15	3.81	-317.69	317.72	0.00	0.00	0.00
•		270.68	2,447.45	4.21	-350.95	350.98	0.00	0.00	0.00
2,600.0		270.68	2,541.76	4.60	-384.21	384.24	0.00	0.00	0.00
2,700.0	00 19.43	270.68	2,636.06	5.00	-417.47	417.50	0.00	0.00	0.00
2,800.0	0 19.43	270.68	2,730.37	5.39	-450.73	450.76	0.00	0.00	0.00
2,900.0	0 19.43	270.68	2,824.68	5.79	-483.99	484.02	0.00	0.00	0.00
3,000.0	0 19.43	270.68	2,918.98	6.19	-517.25	517.28	0.00	0.00	0.00
3,004.2	.6 19.43	270.68	2,923.00	6.20	-518.66	518.70	0.00	0.00	0.00
WASATC	H								
3,100.0		270.68	3,013.29	6.58	-550.50	550.54	0.00	0.00	0.00
									0.00
3,200.0		270.68	3,107.60	6.98	-583.76	583.81	0.00	0.00	0.00
3,300.0		270.68	3,201.90	7.38	-617.02	617.07	0.00	0.00	0.00
3,400.0		270.68	3,296.21	7.77	-650.28	650.33	0.00	0.00	0.00
3,500.0		270.68	3,390.52	8.17	-683.54	683.59	0.00	0.00	0.00
3,600.0	0 19.43	270.68	3,484.82	8.57	-716.80	716.85	0.00	0.00	0.00
3,700.0	0 19.43	270.68	3,579.13	8.96	-750.06	750.11	0.00	0.00	0.00
3,800.0		270.68	3,673.44	9.36	-783.32	783.37	0.00	0.00	0.00
3,900.0		270.68	3,767.74	9.76	-816.57	816.63	0.00	0.00	0.00
4,000.0		270.68	3,862.05	10.15	-849.83	849.89	0.00	0.00	0.00
4,019.1		270.68	3,880.14	10.23	-856.21	856.27	0.00	0.00	0.00
Start Dro								0.00	0.00
•	-								
4,100.0		270.68	3,956.72	10.54	-882.01	882.08	2.00	-2.00	0.00
4,200.0		270.68	4,052.45	10.88	-910.93	911.00	2.00	-2.00	0.00
4,300.0		270.68	4,149.12	11.18	-936.49	936.56	2.00	-2.00	0.00
4,400.0		270.68	4,246.62	11.45	-958.66	958.73	2.00	-2.00	0.00
4,500.0	0 9.81	270.68	4,344.84	11.67	-977.42	977.49	2.00	-2.00	0.00
4,600.0	0 7.81	270.68	4,443.66	11.86	-992.73	992.80	2.00	-2.00	0.00
4,700.0		270.68	4,542.95	12.00	-1,004.59	1,004.66	2.00	-2.00 -2.00	0.00
4,800.0		270.68	4,642.59	12.00	-1,004.59	1,004.00			
4,900.0		270.68	4,742.46	12.10	-1,012.98 -1,017.88	1,013.05	2.00 2.00	-2.00 -3.00	0.00
4,990.5		0.00	4,833.00	12.15	-1,017.88 -1,019.31	1,017.95	2.00	-2.00 -3.00	0.00
•	0.00 hold at 4990.55			14.17	-1,015.51	1,019.30	2.00	-2.00	0.00
5,000.0		0.00	4,842.45	12.17	-1,019.31	1,019.38	0.00	0.00	0.00
5,100.0		0.00	4,942.45	12.17	-1,019.31	1,019.38	0.00	0.00	0.00
5,200.0		0.00	5,042.45	12.17	-1,019.31	1,019.38	0.00	0.00,	0.00
5,300.0		0.00	5,142.45	12.17	-1,019.31	1,019.38	0.00	0.00	0.00
5,400.0	0.00	0.00	5,242.45	12.17	-1,019.31	1,019.38	0.00	0.00	0.00



Planning Report

Database:

Compass

Company:

BILL BARRETT CORP

Project:

CARBON COUNTY, UT (NAD 27)

Site: Well: SECTION 28 T12S R15E PR PR UF 2-28D-12-15

Wellbore:

PR PR UF 2-28D-12-15

Design:

Design #1

Local Co-ordinate Reference:

TVD Reference:

North Reference:

**Survey Calculation Method:** 

Well PR PR UF 2-28D-12-15

KB @ 7522.00ft

KB @ 7522.00ft

True

Minimum Curvature

Measured			Vertical			Vertical	Dogleg	Build	Turn
Depth (ft)	Inclination (°)	Azimuth (°)	Depth (ft)	+N/-S (ft)	+E/-W (ft)	Section (ft)	Rate (°/100ft)	Rate (°/100ft)	Rate (°/100ft)
	• • • • • • • • • • • • • • • • • • • •	• • •	, · · ·	(14)	(11)	<u>,</u> ,	•	(	(11111)
5,500.00	0.00	0.00	5,342.45	12.17	-1.019.31	1,019.38	0.00	0.00	0.00
5,600.00	0.00	0.00	5,442.45	12.17	-1,019.31	1,019.38	0.00	0.00	0.00
5,700.00	0.00	0.00	5,542.45	12.17	-1,019.31	1,019.38	0.00	0.00	0.00
5,800.00	0.00	0.00	5,642.45	12.17	-1,019.31	1,019.38	0.00	0.00	0.00
5,900.00	0.00	0.00	5,742.45	12.17	-1,019.31	1,019.38	0.00	0.00	0.00
6,000.00	0.00	0.00	5,842.45	12.17	-1,019.31	1,019.38	0.00	0.00	0.00
6,100.00	0.00	0.00	5,942.45	12.17	-1,019.31	1,019.38	0.00	0.00	0.00
6,200.00	0.00	0.00	6,042.45	12.17	-1,019.31	1,019.38	0.00	0.00	0.00
6,300.00	0.00	0.00	6,142.45	12.17	-1,019.31	1,019.38	0.00	0.00	0.00
6,400.00	0.00	0.00	6,242.45	12.17	-1,019.31	1,019.38	0.00	0.00	0.00
6,500.00	0.00	0.00	6,342.45	12.17	-1,019.31	1,019.38	0.00	0.00	0.00
6,600.00	0.00	0.00	6,442.45	12.17	-1,019.31	1,019.38	0.00	0.00	0.00
6,670.55	0.00	0.00	6,513.00	12.17	-1,019.31	1,019.38	0.00	0.00	0.00
DARK CANY	<del></del>								
6,700.00	0.00	0.00	6,542.45	12.17	-1,019.31	1,019.38	0.00	0.00	0.00
6,800.00	0.00	0.00	6,642.45	12.17	-1,019.31	1,019.38	0.00	0.00	0.00
6,885.55	0.00	0.00	6,728.00	12.17	-1,019.31	1,019.38	0.00	0.00	0.00
PRICE RIVE	R								
6,900.00	0.00	0.00	6,742.45	12.17	-1,019.31	1,019.38	0.00	0.00	0.00
7,000.00	0.00	0.00	6,842.45	12.17	-1,019.31	1,019.38	0.00	0.00	0.00
7,100.00	0.00	0.00	6,942.45	12.17	-1,019.31	1,019.38	0.00	0.00	0.00
7,200.00	0.00	0.00	7,042.45	12.17	-1,019.31	1,019.38	0.00	0.00	0.00
7,300.00	0.00	0.00	7,142.45	12.17	-1,019.31	1,019.38	0.00	0.00	0.00
7,400.00	0.00	0.00	7,242.45	12.17	-1,019.31	1,019.38	0.00	0.00	0.00
7,470.55	0.00	0.00	7,313.00	12.17	-1,019.31	1,019.38	0.00	0.00	0.00

Casing Points						
	Measured Depth	Vertical Depth			Casing Diameter	Hole Diameter
	(ft)	(ft)		Name	(")	(")
	1,000.00	1,000.00	9 5/8"		9-5/8	12-1/4

Formations						
	Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
	3,004.26	2,923.00	WASATCH		0.00	
	4,990.55	4,833.00	NORTH HORN		0.00	
	6,670.55	6,513.00	DARK CANYON		0.00	
	6,885.55	6,728.00	PRICE RIVER		0.00	



# Planning Report

MD Reference:

North Reference:

Database:

Compass

Company:

BILL BARRETT CORP

Project:

CARBON COUNTY, UT (NAD 27)

7,313.00

Site: Well:

**SECTION 28 T12S R15E** PR PR UF 2-28D-12-15

Wellbore:

PR PR UF 2-28D-12-15

Design:

Design #1

7,470.55

Local Co-ordinate Reference:

**TVD Reference:** 

**Survey Calculation Method:** 

TD at 7470.55

Well PR PR UF 2-28D-12-15

KB @ 7522.00ft

KB @ 7522.00ft

True

Minimum Curvature

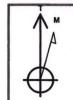
Plan Anno	tations					
	Measured	Vertical	Local Coor	dinates		
	Depth	Depth	+N/-S	+E/-W		
	(ft)	(ft)	(ft)	(ft)	Comment	
	1,060.00	1,060.00	0.02	0.00	Start Build 2.50	
	1,837.10	1,822.29	1.58	-130.48	Start 2182.09 hold at 1837.10 MD	
1	4,019.18	3,880.14	10.23	-856.21	Start Drop -2.00	Į.
	4,990.55	4,833.00	12.17	-1,019.31	Start 2480.00 hold at 4990.55 MD	

-1,019.31

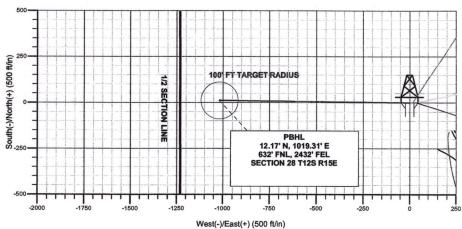
12.17



PR PR UF 2-28D-12-15 650' FNL,1412' FEL SECTION 28 T12S R15E CARBON COUNTY, UT Latitude: 39° 45' 0.410 N Longitude: 110° 14' 12.8300 W



Magnetic Field ength: 52386,6snT Dip Angle: 65.60° Date: 2/22/2008 Model: BGGM2007



Azi 0.00 0.00

0.00

0.00 7313.00

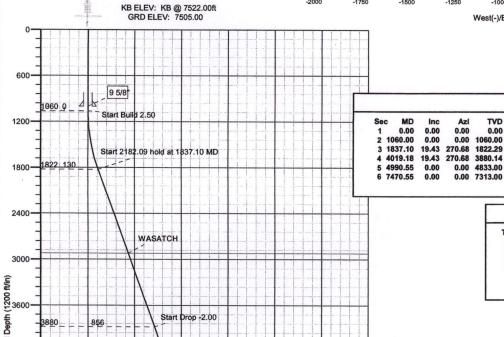
0.00 1060.00

4833.00

0.00 0.00

0.00

0.00



Start 2480.00 hold at 4990.55 MD

NORTH HORN

DARK CANYON

PRICE RIVER

TD at 7470.55

1800

Vertical Section at 270.68° (1200 ft/in)

2400

4200-True

4800

5400

6000

6600

7200

7800

7313

-600

1019

1019

600

1200

#### **FORMATION TOP DETAILS**

**SECTION DETAILS** 

0.00

0.02

0.02

1.58 -130.48 10.23 -856.21

12.17 -1019.31

12.17 -1019.31

0.00

2.50

0.00

2.00

0.00

0.00

70.68 130.49 0.00 856.27

180.00 1019.38

**Target** 

0.00 1019.38 PBHL\_PR PR 2-28D-12-15

0.00

0.00

TVDPath MDPath 2923.00 3004.26 WASATCH 4833.00 4990.55 NORTH HORN 6513.00 6670.55 DARK CANYON 6728.00 6885.55 PRICE RIVER

3000

Plan: Design #1 (PR PR UF 2-28D-12-15/PR PR UF 2-28D-12-15)

Created By: ROBERT H. SCOTT Date: 13:25, March 06 2008



# **BILL BARRETT CORP**

CARBON COUNTY, UT (NAD 27) SECTION 28 T12S R15E PR PR UF 2-28D-12-15

PR PR UF 2-28D-12-15 Design #1

# **Anticollision Report**

06 March, 2008



Anticollision Report

Company:

**BILL BARRETT CORP** 

Project:

CARBON COUNTY, UT (NAD 27)

Reference Site:

**SECTION 28 T12S R15E** 

Site Error:

0.00ft

Reference Well:

PR PR UF 2-28D-12-15

Well Error:

0.00ft

Reference Wellbore

PR PR UF 2-28D-12-15

Reference Design:

Local Co-ordinate Reference:

Well PR PR UF 2-28D-12-15

**TVD Reference:** KB @ 7522.00ft

KB @ 7522.00ft

MD Reference: North Reference:

True

**Survey Calculation Method:** 

Minimum Curvature

Output errors are at

2.00 sigma

Database:

Compass

Design #1

Offset TVD Reference:

Offset Datum

Reference

Design #1

Filter type:

NO GLOBAL FILTER: Using user defined selection & filtering criteria

Interpolation Method:

MD + Stations Interval 100.00ft

Error Model:

**ISCWSA** 

Depth Range: Results Limited by: Unlimited

Scan Method:

Closest Approach 3D

Warning Levels Evaluated at:

Maximum center-center distance of 10,000.00ft 2.00 Sigma

Error Surface:

Elliptical Conic

**Survey Tool Program** From

(ft)

Date 3/6/2008

То

(ft)

Survey (Wellbore)

**Tool Name** 

Description

0.00

7,470.55 Design #1 (PR PR UF 2-28D-12-15)

MWD

MWD - Standard

	Reference	Offset	Dista	nce			
Site Name Offset Well - Wellbore - Design	Measured Depth (ft)	Measured Depth (ft)	Between Centres (ft)	Between Ellipses (ft)	Separation Factor		Warning
SECTION 28 T12S R15E							
PR PR 1-28D-12-15 - PR PR 1-28D-12-15 - PR PR 1-28D	100.00	89.51	275.26	275.06	1,398.926	CC	
PR PR 1-28D-12-15 - PR PR 1-28D-12-15 - PR PR 1-28D	200.00	188.96	275.54	275.00	513.566	ES	
PR PR 1-28D-12-15 - PR PR 1-28D-12-15 - PR PR 1-28D	7,470.55	7,305.00	1,199.72	1,168.64	38.603	SF	
PR PR 5-27D-12-15 - PR PR 5-27D-12-15 - PR PR 5-27D	100.00	89.53	285.11	284.91	1,453.405	CC	
PR PR 5-27D-12-15 - PR PR 5-27D-12-15 - PR PR 5-27D	200.00	189.01	285.37	284.83	533.143	ES	
PR PR 5-27D-12-15 - PR PR 5-27D-12-15 - PR PR 5-27D	1,700.00	1,657.80	390.77	385.16	69.601	SF	
PR PR 8-28D-12-15 - PR PR 8-28D-12-15 - PR PR 8-28D	1,060.08	1,050.09	285.01	281.59	83.318	CC, ES	
PR PR 8-28D-12-15 - PR PR 8-28D-12-15 - PR PR 8-28D	7,470.55	7,389.70	2,296.52	2,256.74	57.733	SF	
PR PR UF 16X-21D-12-15 - PR PR UF 16X-21D-12-15 -	1,060.00	1,060.00	16.43	11.93	3.650	CC, ES	
PR PR UF 16X-21D-12-15 - PR PR UF 16X-21D-12-15 -	1,100.00	1,099.82	16.99	12.32	3.635	SF	
PR PR UF 1A-28D-12-15 - PR PR UF 1A-28D-12-15 - De	1,060.00	1,060.00	48.52	44.02	10.778	CC, ES	
PR PR UF 1A-28D-12-15 - PR PR UF 1A-28D-12-15 - De	1,100.00	1,099.33	49.14	44.47	10.522	SF	
PR PR UF 5A-27D-12-15 - PR PR UF 5A-27D-12-15 - De	1,060.00	1,060.00	32.09	27.59	7.127	CC, ES	
PR PR UF 5A-27D-12-15 - PR PR UF 5A-27D-12-15 - De	1,100.00	1,099.47	32.76	28.09	7.018	SF	
PR PR UF 9-28D-12-15 - PR PR UF 9-28D-12-15 - PR P	1,062.08	1,052.28	266.11	262.68	77.610	CC, ES	
PR PR UF 9-28D-12-15 - PR PR UF 9-28D-12-15 - PR P	1,900.00	1,857.28	401.08	394.39	60.005	SF	

urvey Prog		5-MWD			_ :								Offset Well Error:	0.001
Refer		Offse	et	Semi Major	Axis				Dista	ince				
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbon +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
0.00	0.00	0.00	0.00	0.00	0.00	124.07	-154.12	227.95	275.36					
100.00	100.00	89.51	89.51	0.09	0.10	124.08	-154,20	228.00	275.26	275.06	0.20	1,398.926 CC		
200.00	200,00	188.96	188.96	0.32	0.22	124.11	-154.48	228.14	275.54	275.00	0.54	513.566 ES		
300.00	300.00	288.40	288.40	0.54	0.34	124.16	-154.96	228.39	276.02	275.14	0.88	314.987		
400.00	400.00	387.85	387.84	0.77	0.45	124.24	-155.64	228.74	276.70	275.48	1.22	227.535		
500.00	500.00	487.29	487.28	0.99	0.57	124.33	-156.53	229.20	277.58	276.02	1.56	178.408		
600.00	600.00	586.73	586.71	1.22	0.69	124.45	-157.61	229.76	278.66	276.76	1.90	146.997		
700.00	700.00	686.16	686,13	1.44	0,80	124.59	-158.89	230.43	279.94	277.70	2.24	125.224		
800.00	800,00	785.58	785.54	1.67	0.92	124.75	-160.37	231.19	281.42	278.85	2.58	109.275		
900.00	900.00	885.00	884.94	1.89	1.04	124.93	-162.06	232.06	283.11	280.19	2.92	97.113		
1,000.00	1,000.00	984.40	984.32	2.12	1.15	125.13	-163.94	233.04	285.00	281.74	3.26	87.553		
1,060.00	1,060.00	1,044.04	1,043.94	2.25	1.22	125.26	-165.17	233.67	286.23	282.77	3.46	82.747		



Anticollision Report

Company: BILL BARRETT CORP

Project: CARBON COUNTY, UT (NAD 27)

Reference Site:

**SECTION 28 T12S R15E** 

Site Error: 0.00ft

Reference Well:

PR PR UF 2-28D-12-15

Well Error: 0.00ft

Reference Wellbore PR PR UF 2-28D-12-15

Reference Design:

Design #1

Local Co-ordinate Reference:

**TVD Reference:** 

KB @ 7522.00ft KB @ 7522.00ft

MD Reference: North Reference:

True

**Survey Calculation Method:** 

Output errors are at

Minimum Curvature

Well PR PR UF 2-28D-12-15

Database:

2.00 sigma Compass

Offset TVD Reference:

Survey Prog	ram: 157	5-MWD	ON 28 T12						1				Offset Well Error:	0.00 ft
Refer	rence	Offs	et	Semi Major	Axis				Dist	ance			Shock Hall Ellol;	0.001
Vleasured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbor +N/-S	e Centre +E/-W	Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)			
1,100.00	1,100.00	1,083.79	1,083.68	2.34	1.27	-145.36	-166.02	234.12	287.38	283,82	3.57	80.594		
1,200.00	1,199.91	1,183.04	1,182.90	2.54	1.39	-145.48	-168.30	235.30	292.91	289.03	3,88	75.501		
1,300.00	1,299.56	1,281.95	1,281.77	2.75	1.50	-145.99	-170.78	236.58	302.24	298.04	4.20	71.963		
1,400.00	1,398.75	1,380.31	1,380.08	2.99	1.62	-146.83	-173.43	237.95	315.43	310.91	4.53	69.636		
1,500.00	1,497.30	1,477.92	1,477.64	3.27	1.73	-147.91	-176.26	239.42	332.56	327.69	4.67	68.251		
1,600.00	1,595.02	1,575.00	1,574.66	3.59	1.84	-149.17	-179.26	240,97	353.71	348.48	5.23	67.599		
1,700.00	1,691.71	1,663.87	1,663.44	3.98	2.07	-150.34	-182.80	242.97	379.74	374.04	5.70	66.663		
1,800.00	1,787.21	1,751.11	1,750.48	4.45	2.29	-151.43	-187.66	245.97	411.40	405.23	6.17	66.655		
1,837.10	1,822.29	1,782.88	1,782.16	4.64	2.38	-151.80	-189.76	247.31	424.55	418.20	6.35	66.842		
1,900.00	1,881.61	1,836.28	1,835.35	4.99	2.51	-152.64	-193.71	249.88	447.86	441.18	6.67	67.128		
2,000.00	1,975.92	1,918.88	1,917.49	5.58	2.76	-153.71	-200.90	254.67	486.43	479.23	7.20	67.557		
2,100.00	2,070.23	1,999.68	1,997.63	6.19	3.01	-154.50	-209.44	260.47	527.01	519.27	7.74	68.090		
2,200.00	2,164.53	2,079.14	2,076.19	6.82	3.27	-155.09	-219.30	267.25	569.50	561.21	8.29	68.738		
2,300.00	2,258.84	2,157.87	2,153.73	7. <b>4</b> 6	3.53	-155.50	-230.47	275.02	613.79	604.95	8.84	69.442		
2,400.00	2,353,15	2,238.64	2,233.03	8.11	3.85	-155.81	-243.03	283.81	659.44	650.02	9.42	70,005		
2,500.00	2,447.45	2,318.39	2,311.10	8.77	4.17	-156.02	-256.32	293.20	706.24	696.23	10.01	70,555		
2,600.00	2,541.76	2,409.00	2,399.51	9.44	4.54	-156.17	-272.51	304.71	754.25	743.61	10.63	70.939		
2,700.00	2,636.06	2,490.21	2,478.65	10.11	4.85	-156.26	-287.46	315.06	802.41	791.19	11.22	71.523		
2,800.00	2,730.37	2,589.27	2,575.40	10.79	5.19	-156.36	-305.26	326.72	849.68	837.86	11.82	71.914		
2,900.00	2,824.68	2,696.13	2,680.13	11.47	5.55	-156.49	-323.30	337.87	895.46	883.04	12.42	72.073		
3,000.00	2,918.98	2,803.52	2,785.79	12.15	5.89	-156.66	-339.96	347.38	939.45	926.41	13.04	72.050		
3,100.00	3,013.29	2,912.74	2,893.68	12.84	6.23	-156.91	-354.78	355.64	981.68	968.03	13.65	71.907		
3,200.00	3,107.60	3,022.06	3,002.00	13.53	6.54	-157.20	-367.84	362.47	1,022.25	1,007.99	14.26	71.686		
3,300.00	3,201.90	3,136.13	3,115.39	14.22	6.84	-157.59	-378.86	368.32	1,061.10	1,046.24	14.86	71.395		
3,400.00	3,296.21	3,254.98	3,233.79	14.91	7.13	-158.03	-388.23	372.30	1,097.83	1,082.37	15.46	70.997		
3,500.00	3,390.52	3,377.97	3,356.54	15.60	7.39	-158.51	-395.78	373.90	1,132.22	1,116.16	16.06	70.505		
3,600.00	3,484.82	3,493.51	3,472.00	16.29	7.59	-159.04	-399.81	373.72	1,164.48	1,148.20	16.28	71.522		
3,700.00	3,579.13	3,597.86	3,576.34	16.99	7.76	-159.59	-401.08	372.93	1,195.53	1,182.44	13.09	91.345		
3,800.00	3,673.44	3,696.22	3,674.69	17.68	7.91	-160.10	-401.81	371.86	1,226.22	1,214.91	11.31	108.449		
3,900.00	3,767.74	3,795.37	3,773.83	18.38	8.07	-160.58	-402.52	370.48	1,256.71	1,247.91	8.80	142.794		
4,000.00	3,862.05	3,891.13	3,869.58	19.08	8.22	-161.02	-403.18	368.84	1,286.98	1,277.14	9.85	130.693		
4,019.18	3,880.14	3,908.97	3,887.41	19.21	8.25	-161.10	-403.34	368.54	1,292.81	1,282.29	10.51	122.971		
4,100.00	3,956.72	3,989.82	3,968.25	19.70	8,39	-161.58	-404.12	367.05	1,316.27	1,307.29	8.98	146.590		
4,200.00	4,052.45	4,093.38	4,071.78	20.18	8.56	-162.09	-405.12	364.64	1,342.01	1,322.29	19.72	68.048		
4,300.00	4,149.12	4,203.06	4,181,39	20.62	8.74	-162.51	-406.07	361.33	1,363.90	1,343.76	20.14	67.707		
4,400.00	4,246.62	4,312.96	4,291.21	21.01	8.91	-162.85	-406.67	357.07	1,381.65	1,361.07	20.58	67.139		
4,500.00	4,344.84	4,432.51	4,410.61	21.34	9.10	-163.11	-407.04	351.08	1,394.97	1,373.95	21.02	66.362		
4,600.00	4,443.66	4,548.40	4,526.27	21.63	9.27	-163.29	-406.94	343.71	1,403.58	1,382.20	21.38	65.637		
4,700.00	4,542.95	4,654.03	4,631.64	21.87	9.42	-163.42	-405.58	336.53	1,408.09	1,386.46	21.63	65.093		
4,800.00	4,642.59	4,753.91	4,731.27	22.07	9.55	-163.56	-402.65	330.08	1,409.10	1,397.34	11.76	119.833		
4,900.00	4,742.46	4,847.97	4,825.06	22.21	9.67	-163.72	-398.06	324.76	1,406.96	1,389.26	17.70	79,469		
4,990.55	4,833.00	4,934.26	4,911.08	22.31	9.77	106.80	-392.51	320.69	1,402.54	1,380.28	22.27	62.992		
5,000.00	4,842.45	4,943.42	4,920.21	22.32	9.79	106.79	-391.92	320.27	1,401.95	1,379.65	22.30	62.881		
5,100.00	4,942.45	5,031.75	5,008.28	22.42	9.90	106.61	-386.26	316.49	1,396.01	1,373.48	22.53	61.968		
5,200.00	5,042.45	5,126.41	5,102.68	22.53	10.02	106.40	-380.16	313.28	1,390.92	1,368.11	22.81	60.983		
5,300.00	5,142.45	5,228.71	5,204.71	22.63	10.16	106.18	-373.55	309.76	1,385.79	1,362.60	23.19	59.747		
5,400.00	5,242.45	5,328.87	5,304.63	22.74	10.31	105.99	-367.58	306.02	1,380.55	1,356.98	23.57	58.567		
5,500.00	5,342.45	5,438.22	5,413.70	22.85	10.47	105.78	-361.19	301.60	1,375.07	1,351.09	23.98	57.344		
5,600.00	5,442.45	5,557.94	5,533.03	22.96	10,65	105.55	-353.78	295.45	1,368.44	1,344.01	24.43	56.018		
5,700.00	5,542.45	5,676.34	5,650.92	23.07	10.83	105.32	-346.02	287.78	1,360.45	1,335.61	24.84	54.764		
5,800.00	5,642.45	5,787.42	5,761.38	23.19	10.99	105.09	-337.95	279.31	1,351.15	1,325.95	25.21	53.600		
5,900.00	5,742.45	5,892.94	5,866.26	23.30	11.16	104.85								



Anticollision Report

Company:

Well Error:

**BILL BARRETT CORP** 

Project: Reference Site: CARBON COUNTY, UT (NAD 27)

**SECTION 28 T12S R15E** 

Site Error:

0.00ft

Reference Well:

PR PR UF 2-28D-12-15

0.00ft

Reference Wellbore

PR PR UF 2-28D-12-15

Reference Design:

Design #1

Local Co-ordinate Reference:

**TVD Reference:** 

MD Reference:

Well PR PR UF 2-28D-12-15

KB @ 7522.00ft

KB @ 7522.00ft

North Reference: True

**Survey Calculation Method:** Output errors are at

Minimum Curvature

2.00 sigma

Database:

Offset TVD Reference:

Compass Offset Datum

Offset Design SECTION 28 T12S R15E - PR PR 1-28D-12-15 - PR PR 1-28D-12-15 - PR PR 1-28D-12-15 Offset Site Error: 0.00 ft Survey Program: 1575-MWD Offset Well Error: 0.00 ft Reference Semi Major Axis Distance Measured Vertical Reference Offset Highside Offset Wellbore Centre Betv Bet Separation Warning Depth Depth Depth Depth Factor Ellip +N/-S +E/-W (ft) (ft) (ft) (ft) (ft) (ft) (°) (ft) (ft) (ft) 6,000.00 5,842.45 6,003.95 5,976.51 23.42 11.33 104.59 -321.26 261.24 1.331.07 25.94 51.322 1,305.14 6,100.00 5,942.45 6,110.52 6,082.24 23.54 11.50 104.32 -312.28251.36 1.319.96 1.293.66 26.30 50.188 6,200.00 6,042.45 6,209.35 6.180.29 23.66 11.66 104 09 -304 29 241.86 1,308,64 1.281.98 26.66 49 088 6,300.00 6,142.45 6.312.79 6.282.95 23.78 11.84 103.88 -296 87 231 61 1,297.30 1,270.26 27.03 47,989 6.400.00 6.242.45 6.418 93 6.388.18 23 90 12.03 103.68 -289.47 219.84 1,284.81 1,257.40 27.41 46.878 6.500.00 6 342 45 6,489.00 6.457.81 24.03 12.15 103.58 -285.46 1,274.06 213.14 1.246.34 27.72 45.966 6,600.00 6,442.45 6,580.39 6.548.77 24.16 12.32 103.46 -281 08 205.56 1 264 84 1 236 77 28.07 45 060 6,700.00 6,542.45 6.640.54 6,672.55 24.28 12.50 103.36 -276.90 198.11 1.255.93 1,227,50 28.43 44,179 6.800.00 6.642.45 6.769.72 6 737 33 24.41 12.68 103.26 -272.86 190.62 1,247.47 1,218.67 28.80 43,317 1,209.93 29.17 6.900.00 6.742.45 6.868 34 6.835.59 24.54 12.87 103.15 -268.80 183.10 1,239.10 42.476 7,000.00 6,842.45 6,966.98 6,933.86 24.68 13.06 103.05 -264.75 1,230.82 175.65 1,201.27 29.55 41.658 7.100.00 6,942,45 7.065.63 7.032.15 24.81 13.26 102 94 -260.73 168.29 1,222.62 1,192.70 29,92 40.864 7.200.00 7.042 45 7.164.29 7,130.46 24.94 13.45 102.83 -256.73 160.99 1,214.51 1,184.22 30.29 40.091 7,300.00 7.142.45 7,262.97 7,228.79 25.08 13.64 102.73 -252.74 39.336 153.78 1,206.48 1,175.81 30.67 7,400.00 7,242.45 7,305.00 7,270.68 25.22 13.72 102.68 -251.06 150.73 1,199.89 1,168.95 30.94 38.778 7,438.23 7,280.68 7,305.00 7,270.68 25.27 13.72 102.68 -251.06 38.666 150.73 1.168.27 31.02 1.199.28 7.470.55 7.313 00 7,270.68 7 305 00 25.31 13.72 102 68 -251 06 150.73 1,199.72 1,168.64 31.08 38 603 SE



Anticollision Report

Company: **BILL BARRETT CORP** 

Project: **CARBON COUNTY, UT (NAD 27)** Reference Site:

Site Error:

**SECTION 28 T12S R15E** 

0.00ft

Reference Well: PR PR UF 2-28D-12-15

Well Error: 0.00ft

Reference Wellbore PR PR UF 2-28D-12-15

Reference Design:

Design #1

Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference:

**Survey Calculation Method:** 

Output errors are at

Database:

Offset TVD Reference:

Well PR PR UF 2-28D-12-15

KB @ 7522.00ft

KB @ 7522.00ft

True

Minimum Curvature

2.00 sigma Compass Offset Datum

survey Prog	ıram: 159	4-MWD		S R15E - F				· ·					Offset Well Error:	0.00 ft
	rence	Offs	et	Semi Major	Axis				Dista	ince			Troll Error:	0.001
leasured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbor	e Centre +E/-W	Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(9)	(ft)	(ft)	(ft)	(ft)	(ft)			
0.00	0.00	0.80	0.00	0.00	0.00	121.53	-149.05	242.95	285.21					
100.00	100,00	89,53	89.53	0.09	0.10	121.53	-149.09	243.01	285.11	284.91	0.20	1,453.405 CC		
200.00	200.00	189.01	189.01	0.32	0.22	121.54	-149,24	243,21	285.37	284.83	0.54	533,143 ES		
300.00	300.00	288.48	288.48	0.54	0.33	121.55	-149.51	243.57	285.81	284.93	0.87	326.883		
400.00	400.00	387.95	387.95	0.77	0.45	121.56	-149.88	244.07	286.43	285.22	1.21	236.052		
500.00	500.00	487.43	487,42	0.99	0.56	121.57	-150.36	244.71	287.24	285.68	1.55	185.015		
600.00	600.00	586.89	586,88	1.22	0.68	121.59	-150.94	245.51	288.23	286.34	1.89	152.374		
700.00	700.00	686.36	686.34	1.44	0.79	121.61	-151.64	246.45	289.40	287.17	2,23	129.738		
800.00	800.00	785.82	785.79	1.67	0.90	121.63	-152.45	247.54	290.76	288.19	2.57	113.147		
900.00	900,00	885.27	885.23	1.89	1.02	121.66	-153.36	248.77	292.30	289.39	2.91	100.488		
1,000.00	1,000.00	984.72	984.66	2.12	1.13	121.69	-154.39	250,16	294.02	290.77	3.25	90,528		
1,060.00	1,060.00	1,044.38	1,044.32	2.25	1.20	121.70	-155.05	251.06	295.14	291.69	3.45	85.517		
1,100.00	1,100.00	1,084.15	1,084.08	2.34	1.25	-148.99	-155.52	251.69	296.23	292.68	3.55	83.448		
1,200.00	1,199.91	1,183.43	1,183.33	2.54	1.36	-149.27	-156.76	253.36	301.69	297.83	3.86	78.121		
1,300.00	1,299.56	1,282.34	1,282,22	2.75	1.48	-149.88	-158.10	255.17	311.10	306,92	4.18	74.434		
1,400.00	1,398.75	1,380.68	1,380.53	2.99	1.59	-150.79	-159.55	257.12	324.52	320.02	4.51	72.033		
1,500.00	1,497.30	1,478.23	1,478.05	202	4 70	454.00	101.00	000.40	6.0.00	007.15	401	70.040		
1,600.00	1,497.30	1,478.23	1,478.05	3.27 3.59	1.70	-151.90 153.14	-161.08	259.19	342.03	337.18	4.84	70.642		
1,700.00		1,657.80			1.81	-153.14	-162.70	261.38	363.69	358.49	5.19	70.049		
	1,691.71		1,657.50	3.98	1.99	-154.22	-164.72	264.25	390.77	385.16	5.61	69.601 SF		
1,800.00	1,787.21	1,736.80	1,736.23	4.45	2.20	-155.16	-168.40	269.55	425.50	419.43	6.07	70.070		
1,837.10	1,822.29	1,765.77	1,765.03	4.64	2.27	-155.46	-170.24	271.97	440.14	433.89	6.25	70.445		
1,900.00	1,881.61	1,813.27	1,812.18	4.99	2.41	-156.15	-173.79	276.51	466.35	459.79	6.56	71.140		
2,000.00	1,975.92	1,886.11	1,884.21	5.58	2.64	-157.05	-180.36	285.15	510.62	503.58	7.04	72.488		
2,100.00	2,070.23	1,957.78	1,954.69	6.19	2.89	-157.75	-188.12	295.61	557.88	550.33	7.55	73.925		
2,200.00	2,164.53	2,028.99	2,024.29	6.82	3.16	-158.29	-197.10	307.66	607.71	599.65	8.06	75.435		
2,300.00	2,258.84	2,100.00	2,093.35	7.46	3.45	-158.77	-206.49	321.23	659.59	651.02	8.56	77.017		
2,400.00	2,353.15	2,167.48	2,158.61	8.11	3.76	-159.17	-215.91	335.56	713.49	704.42	9.07	78.658		
2,500.00	2,447.45	2,232.89	2,221.44	8.77	4.09	-159.49	-225.84	350.82	769.46	759,88	9.58	80.314		
2,600.00	2,541.76	2,290.00	2,275.93	9.44	4.39	-159.71	-235.13	365.17	827.34	817.26	10.08	82.096		
2,700.00	2,636.06	2,357.06	2,339.44	10.11	4.80	-159.93	-246.72	383.31	887.00	876.40	10.60	83.644		
2,800.00	2,730.37	2,412.83	2,391.81	10.79	5.15	-160.07	-256.89	399.57	948.56	937.44	11.12	85.337		
2,900.00	2,824.68	2,480.00	2,454.13	11.47	5.61	-160 22	260.04	420.03	1 012 20	1 000 72	11.65	000 000		
3,000.00	2,918.98	2,511.75	2,483.27	12.15	5.86	-160.22 -160.27	-269.94 -276.46	420.93 431.73	1,012.38 1,077.82	1,000.72 1,065.70	12.11	86.869 88.974		
3,100.00	3,013.29	2,575.00	2,540.59	12.15	6.36	-160.27	-276,46 -290,22	451.75 454.65	1,077.82	1,133.00	12.11	90.519		
3,200.00	3,107.60	2,626.48	2,586.93	13.53	6.75	-160.34	-290.22 -301.72	473.90	1,214.39	1,133.00	13.15	90.519		
3,300.00	3,201.90	2,697.39	2,650.98	14.22	7.29	-160.39	-301.72 -317.29	500.04	1,282.90	1,269.20	13.69	93.682		
0.400.0-														
3,400.00	3,296.21	2,754.53	2,702.31	14.91	7.75	-160.51	-330.02	521.67	1,352.23	1,338.02	14.21	95.182		
3,500.00	3,390.52	2,821.96	2,762.77	15.60	8.31	-160.59	-344.67	547.69	1,421.98	1,407.23	14.75	96.412		
3,600.00	3,484.82	2,881.17	2,815.74	16.29	8.82	-160.67	-357.35	570.90	1,492.13	1,476.85	15.27	97.695		
3,700.00	3,579.13	2,940.33	2,868.43	16.99	9.35	-160.73	-370.40	594.45	1,562.88	1,547.08	15.80	98.910		
3,800.00	3,673.44	3,003.27	2,924.26	17.68	9.93	-160.76	-384.84	619.64	1,634.03	1,617.68	16.35	99.950		
3,900.00	3,767.74	3,060.82	2,975.14	18.38	10,48	-160.77	-398.47	642.83	1,705.58	1,688.69	16.89	100.994		
4,000.00	3,862.05	3,113.00	3,021.07	19.08	10.99	-160,78	-410.98	664.21	1,777.70	1,760.28	17.42	102.063		
4,019.18	3,880.14	3,126.31	3,032.74	19.21	11.11	-160.78	-414.21	669.73	1,791.62	1,774.09	17.53	102.225		
4,100.00	3,956.72	3,212.22	3,108.44	19.70	11.89	-161.30	-434.70	704.78	1,849.01	1,830.93	18.08	102.256		
4,200.00	4,052.45	3,314.36	3,199.30	20.18	12.82	-161,82	-458.31	745.05	1,916.59	1,897.86	18.73	102.337		
4 300 00	4 140 10	3 379 50	3 254 00	20.00	10 04	160.07	470.07	700 44	1 004 00	1 000 05	40.05	100 044		
4,300.00 4,400.00	4,149.12 4,246.62	3,373.50 3,444.40	3,251.90 3,314.64	20.62	13.34	-162,27 -162,61	-472.37 -490.11	768.14	1,981.60	1,962.35	19.25	102.944		
4,500.00	4,246.62	3,520.77	3,382.17	21.01	13.99	-162,61	-490.11	796.00	2,044.62	2,024.81	19.81	103.234		
4,600.00		-	· · ·	21.34	14.71	-162.87	-509.38	825.99	2,105.08	2,084.70	20.37	103.327		
4,700.00	4,443.66 4,542.95	3,588.00 3,666.94	3,441.52 3,511.09	21.63 21.87	15.35 16.11	-163.10 -163.27	-526.40 -546.26	852.59 884.17	2,163.16 2,218.84	2,142.27 2,197.41	20.89 21.43	103.556 103.533		
-,, 50.00	7,472.00	0,000.04	0,011.09	21.01	10.11	-100.21	-540.26	004.17	4,410.04	2,171.41	21.43	100.000		
4,800.00	4,642.59	3,738.52	3,574.04	22.07	16.81	-163.42	-564.16	913.15	2,272.13	2,250.21	21.92	103,648		



Anticollision Report

Company:

BILL BARRETT CORP

Project:

CARBON COUNTY, UT (NAD 27)

Reference Site:

**SECTION 28 T12S R15E** 0.00ft

Site Error: Reference Well:

PR PR UF 2-28D-12-15

Well Error:

Reference Wellbore

0.00ft PR PR UF 2-28D-12-15

Reference Design:

Design #1

Local Co-ordinate Reference:

**TVD Reference:** MD Reference:

Well PR PR UF 2-28D-12-15 KB @ 7522.00ft

KB @ 7522.00ft

North Reference:

**Survey Calculation Method:** 

True Minimum Curvature

Output errors are at

Database: Offset TVD Reference: 2.00 sigma Compass

Offset De Survey Prog	•	SECTIO 4-MWD	N 28 112	SKIDE - P	'K PK 5-2	2/U-12-15 -	PR PR 5-27D-	12-15 - PR	PR 5-27D	-12-15			Offset Site Error:	0.001
Refer		Offse	et	Semi Major	Axis				Dist	ince			Offset Well Error:	0.001
Measured Depth	Vertical Depth	Measured Depth	Vertical	Reference	Offset	Highside	Offset Wellbor		Between	Between	Minimum	Separation	Warning	
(ft)	(ft)	(ft)	Depth (ft)	(ft)	(ft)	Toolface (°)	+N/-S (ft)	+E/-W (ft)	Centres (ft)	Ellipses (ft)	Separation (ft)	Factor		
4,900.00	4,742.46	3,816.68	3,642.56	22.21	17.59	-163.51	-583.97	945.12	2,323.06	2,300.65	22,41	103.652		
4,990.55	4,833.00	3,903.96	3,719.07	22.31	18.43	107.18	-606,24	980.75	2,366,72	2,343.82	22.90	103,371		
5,000.00	4,842.45	3,915.10	3,728.84	22.32	18.53	107.22	-609.08	985.26	2,371,12	2,348,17	22.95	103.303		
5,100.00	4,942.45	4,032.76	3,832.53	22.42	19.61	107.61	-638.87	1.032.24	2,417.14	2,393.58	23.56	102.604		
5,200.00	5,042.45	4,178.98	3,962.63	22.53	20.89	108.04	-674.52	1.088.63	2,461.60	2,437.34	24.26	101,484		
5,300.00	5,142.45	4,279.09	4,052.34	22.63	21.76	108.33	-698.42	1,126.10	2,504.87	2,480.09	24.78	101.067		
5,400.00	5,242.45	4,365.99	4,130,34	22.74	22.51	108.55	-718.76	1,158.55	2,547,94	2,522.67	25.27	100.836		
5,500.00	5,342.45	4,428.60	4,186.34	22.85	23.08	108.72	-733,68	1,182,26	2,591.68	2,566.01	25.67	100.959		
5,600.00	5,442.45	4,579.91	4,322.31	22.96	24.42	109.09	-769.00	1,238.43	2,634.39	2,608,00	26.40	99.804		
5,700.00	5,542.45	4,654.60	4,389.66	23.07	25.07	109.24	-785.64	1,266.09	2,676,85	2.650.02	26.83	99.764		
5,800.00	5,642.45	4,741.69	4,468.06	23.19	25.84	109.42	-805.20	1,298.58	2,719.65	2,692.33	27.32	99.543		
5,900.00	5,742.45	4,847.63	4,563.55	23.30	26.77	109.65	-829.45	1,337.53	2,762.13	2,734.26	27.88	99.083		
6,000.00	5,842.45	4,918.00	4,627.01	23.42	27.39	109.80	-845.69	1,363.24	2,804.57	2,776.26	28.30	99.084		
6,100.00	5,942.45	4,985.95	4,688.09	23.54	28.01	109.94	-861.33	1,388.58	2,847,70	2.818.96	28.73	99,116		
6,200.00	6,042.45	5,057.46	4,752.03	23.66	28.67	110.07	-877.72	1,416,08	2,891.80	2,862.63	29.17	99.137		
6,300.00	6,142.45	5,200.52	4,880.18	23.78	29.97	110.34	-910.69	1,470.45	2,935.78	2,905.92	29.86	98.314		
6,400.00	6,242.45	5,281.43	4,953.00	23.90	30.68	110.50	-929.65	1,500,20	2.978,58	2,948,25	30.33	98,218		
6,500.00	6,342.45	5,340.69	5,006.15	24.03	31.22	110.62	-944.05	1,522.08	3,021,94	2,991.22	30.72	98.362		
6,600.00	6,442.45	5,418.48	5,075.51	24.16	31.93	110.77	-963.14	1,551.68	3,066.35	3,035,16	31.19	98.313		
6,700.00	6,542.45	5,728.40	5,357.26	24.28	34.47	111.30	-1,032.66	1,660.28	3,106,92	3,074.49	32.42	95.821		
6,800.00	6,642.45	5,939.39	5,553.78	24.41	35.97	111.62	-1,075.07	1,724.25	3,142.09	3,108.82	33.28	94.426		
6,900.00	6,742.45	6,160.44	5,762.36	24.54	37,39	111.90	-1,115.35	1,785.28	3,174.61	3,140.48	34.12	93.029		
7,000.00	6,842.45	6,346.32	5,939.67	24.68	38.47	112.09	-1,145.26	1,832.37	3,204.50	3,169.66	34.84	91,984		
7,100.00	6,942.45	6,568.76	6,154.18	24.81	39.61	112.28	-1,176.56	1,882.10	3,230.63	3,195.02	35,62	90.706		
7,200.00	7,042.45	6,806.36	6,385.65	24.94	40.66	112.45	-1,205.21	1,927.38	3,253.21	3,216.82	36.39	89.393		
7,300.00	7,142.45	7,111.79	6,686.44	25.08	41.72	112.63	-1,234.40	1,971.24	3,270.52	3,233.26	37.26	87.774		
7,400.00	7,242,45	7,268.45	6,841.76	25.22	42.15	112.70	-1,245.87	1,988.14	3,283.30	3,245.54	37.76	86.950		
7,470.55	7,313.00	7,414.10	6,986.51	25.31	42.44	112.77	-1,255,46	2,001.18	3,290,96	3,252.81	38.16	86.252		



Anticollision Report

BILL BARRETT CORP

Project: CARBON COUNTY, UT (NAD 27) **SECTION 28 T12S R15E** 

Reference Site: Site Error:

Company:

0.00ft

Reference Well:

PR PR UF 2-28D-12-15

Well Error:

0.00ft

Reference Wellbore

Reference Design:

PR PR UF 2-28D-12-15 Design #1

Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference:

**Survey Calculation Method:** Output errors are at

Database:

Offset TVD Reference:

Well PR PR UF 2-28D-12-15

KB @ 7522.00ft KB @ 7522.00ft

True

Minimum Curvature

2.00 sigma

Compass

No.   Processor   No.   Proc	Offset De Survey Prog	ram: 159	0-MWD				9	PR PR 8-28D-							Site Error: Well Error:	0.00 ft 0.00 ft
					-		Highside	Offset Wellbor	e Centre			Minimum	Senaration			
March   Marc		Depth	Depth	Depth			Toolface	+N/-S	+E/-W	Centres	Ellipses	Separation			Warning	
100.00   1	0.00	0.00	0.00	0.00	0.00	0.00					• •	• •				
200.00   200.00   190.00   190.00   190.00   0.32   0.21   191.84   .449.17   242.62   285.03   286.51   0.83   509.185   .499.47   .4											204 04	0.40	4 470 070			
1,000.00   1,000.00   1,000.01																
					0.00	0.00	121.01	-140.00	242.10	200.00	200.49	1,54	100.011			
Toologo   Tool	600.00	600,00	590.01	590.01	1.22	0.66	121.65	-149.55	242.63	285.03	283.15	1.87	152.074			
1.000.00   000.00   780.01   780.01   780.01   167   0.88   121.75   149.94   242.28   285.02   221.48   2.56   111.924   110.000   1.000.00   800.01   800.01   1.000.01   1.	700.00	700.00	690.01	690.01	1.44	0.77	121.70	-149.73	242.52							
	800.00	800.00	790.01	790.01	1.67	0.88	121.75	-149.94	242.38	285.02	282.48					
1,000.00   1,000.00   1,000.01   1,000.01   1,000.01   1,000.01   2,12   1,17   12,191   1,100.03   241.94   285.01   221.96   3.42   83.342   1,100.00   1,000.00	900.00	900.00	890.01	890.01	1.89	0.99	121.80	-150.18	242.23		282.14					
1,000.00 1,000.00 1,000.01 1,000.01 1,000.01 1,000.01 1,000.00 1,0	1,000.00	1,000.00	990.01	990.01	2,12	1.10	121.87	-150.45								
1,000.00   1,000.00   1,000.00   1,000.00   2,24   122   14.87   14.97   1.910.75   241.87   285.51   281.90   3.42   83.318 CC, ES   1,000.00   1,000.01   1,000.01   1,000.01   1,000.01   1,000.01   1,000.01   1,000.01   1,000.01   1,000.01   1,000.01   1,000.01   1,000.01   1,000.01   1,000.01   1,000.00   1,000.00   1,209.5																
1,100.00 1,000.01 1,000.01 1,000.01 1,000.01 2,244 122 -144,78 -150.76 241,87 285,71 281,76 3.55 80,328 1,000.01 1,000.0						1.17	121.91	-150.63	241.94	285.01	281.59	3.42	83.324			
1,000   1,00				1,050.09	2.25	1.17	121.91	-150.63	241.94	285.01	281.59	3.42	83.318 C	C, ES		
1,400,00 1,389.75 1,289.60 1,289.60 1,289.60 1,289.60 1,55 14.44 -149.71 -161.43 241.43 265.80 281.62 4.16 70.800 1,400,00 1,389.73 1,388.83 1,388.82 2.99 1.55 -150.68 -151.89 -150.22 24.09 3 221.82 4.50 8.207 1,500,00 1,573.70 1,867.24 1,487.42 3.27 1,66 1.51.89 -152.22 24.09 3 221.82 4.50 8.207 1,500,00 1,573.70 1,867.24 1,487.42 3.37 1,66 1.51.89 1.52 1.52 24.09 3 221.83 18.80 4.82 66.702 1,500,00 1,579.71 1,580.82 1,598.20 3.59 1.77 -153.26 -152.22 24.09 3 221.80 340.61 335.36 5.15 66.10 1.700.00 1,579.71 1,570.84 1,750.69 4.45 2.12 -155.43 -152.26 24.06 340.61 335.36 5.15 6.60 10.4 1.700.00 1,779.71 1,750.84 1,750.69 4.45 2.12 -155.43 -157.24 244.50 386.99 380.92 6.06 65.475 1,887.70 1,822.29 1,779.00 1,778.76 4.64 2.18 -156.72 -158.85 240.30 430.71 4.25 5.64 6.6.24 1.700.00 1,779.72 1,779.00 1,778.76 4.69 2.30 -156.43 -157.24 244.50 386.99 380.92 6.06 65.475 1,887.70 1,822.29 1,779.00 1,778.76 4.69 2.30 -156.43 -152.24 244.50 386.99 380.92 6.06 65.475 1,887.70 1,822.29 1,779.00 1,778.76 4.69 2.30 -156.43 -152.24 240.30 435.07 425.5 6.64 66.524			1,090.01	1,090.01	2.34	1.22	-148.78	-150.75	241.87	285.31	281.76	3.55	80.326			
1,400.00 1,388.73 1,388.83 1,388.82 2.99 1,55 -150.68 -151.82 241.19 306.75 302.25 4.50 88.207 1,500.00 1,467.30 1,467.42 1,467.42 3.27 1,66 -151.89 -152.22 240.89 321.83 316.80 4.82 66.70 1,500.00 1,667.30 1,689.46 1,589.20 3.59 1,77 -153.26 -152.66 240.65 340.15 33.36 5.15 66.10 1,700.00 1,691.71 1,689.46 1,589.46 1,589.46 1,590.40 1,700.00 1,691.71 1,700.84 1,750.69 4.45 2.12 -155.43 -153.66 241.40 356.05 359.44 5.61 65.017 1,800.00 1,787.21 1,750.84 1,750.69 4.45 2.12 -155.43 -157.24 244.50 386.89 309.22 6.06 65.017 1,800.00 1,881.61 1,801.25 1,801.76 4.99 2.30 -156.43 -152.66 240.50 450.00 450.00 1,881.61 1,801.25 1,801.76 4.99 2.30 -156.43 -152.66 240.50 450.00 450.00 450.00 1,881.61 1,801.25 1,801.76 4.99 2.30 -156.43 -152.66 240.50 450.00 4			1,189.93	1,189.93	2.54	1.33	-149.06	-151.08	241.66	288.67	284.81	3.86	74.734			
1,400.00 1,398.75 1,388.83 1,388.82 2.99 1.55 -160.68 -161.82 241.19 306.75 302.25 4.50 68.207 1,500.00 1,467.30 1,467.42 1,467.42 3.27 1.66 -161.89 -162.22 240.93 321.83 316.80 4.82 66.702 1,600.00 1,	1,300.00	1,299.56	1,289.60	1,289.60	2.75	1.44	-149.71	-151.43	241.43	295.80						
1,500.00 1,487.30 1,487.42 1,487.42 3,27 1,566 -151.89 1,502.20 240.93 321.83 316.80 4.82 66.702 1,500.00 1,500.20 1,500	4 488 67															
1,880,00 1,885,02 1,885,02 1,885,02 3.59 1,77 -155,02 -152,06 240,08 340,51 335,38 5.16 66,104 1,700,00 1,871 1,894,04 1,894,04 1,894,05 1,894,00 1,891,11 1,894,06 1,894,05 1											302.25	4.50	68.207			
1,700.00 1,881.71 1,869.48 1,869.45 3,88 1,98 -155.43 -155.43 -157.24 244.50 385.98 380.02 6.66 68.475 1,800.00 1,787.21 1,750.84 1,750.68 1,750.68 4,45 2,12 -155.43 -157.24 244.50 385.98 380.02 6.66 68.475 1,800.00 1,881.81 1,831.25 1,830.76 4,99 2.30 -156.43 -156.28 248.03 410.83 404.40 6.23 65.899 1,500.00 1,891.81 1,831.25 1,830.76 4,99 2.30 -156.43 -156.28 248.03 410.83 405.07 425.53 6.54 65.24 2,000.00 1,975.25 1,912.15 1,911.03 5.58 2.50 -157.17 -170.80 255.20 475.84 468.80 7.05 67.539 1,500.00 1,975.25 1,912.15 1,911.03 5.58 2.50 -157.17 -170.80 255.20 475.84 468.80 7.05 67.539 1,500.00 2,164.53 2,069.13 2,065.70 6.82 2.56 -157.65 -193.64 280.00 563.24 555.14 8.10 69.571 1,500.00 2,268.84 2,146.47 2,141.34 7.46 3.22 -157.56 -193.64 280.00 563.24 555.14 8.10 69.571 1,500.00 2,268.84 2,141.34 7.46 3.22 -157.56 -193.64 280.00 563.24 555.14 8.10 69.571 1,500.00 2,268.47 2,241.68 8.10 69.571 1,500.00 2,268.47 2,241.68 8.10 69.571 1,500.00 2,474.65 2,291.03 2,281.65 8.77 3.80 -157.56 225.66 286.69 68.26 640.66 9.20 7,15.22 2,500.00 2,447.45 2,291.03 2,281.65 8.77 3.80 -157.55 235.86 237.43 708.73 808.86 9.77 72.529 1,500.00 2,474.76 2,282.03 2,284.65 8.77 3.80 -157.55 235.86 237.43 708.73 808.86 9.77 72.529 1,500.00 2,474.65 2,241.68 8.24 2,241.89 8.24 2									240.93	321.63	316.80	4.82	66.702			
1,800.00 1,787.21 1,780.84 1,780.69 4,45 2,12 -155.43 -157.24 244.50 386.89 30.02 6.06 66.475 1,837.10 1,822.29 1,778.00 1,778.76 4.64 2,18 -155.72 1,158.85 246.03 410.63 404.40 6.23 66.899 1,900.00 1,875.92 1,830.76 4.99 2.20 -155.43 -162.25 243.00 476.84 468.80 7.05 67.539 2,000.00 1,875.92 1,812.15 1,911.03 5.59 2.50 -157.17 -170.80 255.20 475.84 468.80 7.05 67.539 2,000.00 2,070.23 1,921.15 1,911.03 5.59 2.50 -157.17 -170.80 255.20 475.84 468.80 7.05 67.539 2,000.00 2,070.23 1,921.15 1,911.03 5.59 2.70 1,751 -181.57 281.68 18.25 180.95 7.55 686.846 2,200.00 2,164.53 2,065.13 2,065.70 6.22 2.86 -157.66 -195.84 260.00 563.24 505.14 8.10 695.71 2,300.00 2,258.84 2,148.47 2,141.34 7.46 3.22 -157.67 -207.27 277.55 609.82 601.17 8.85 70.514 2,400.00 2,353.15 2,218.76 2,211.69 8.11 3.50 -157.62 -221.18 266.79 688.26 694.06 9.20 71.522 2,800.00 2,447.45 2,251.03 2,281.65 8.77 3.80 -157.62 -235.86 2,274.39 70.37 688.85 9.77 72.529 2,800.00 2,447.45 2,240.03 2,281.65 8.77 3.80 -157.62 -235.86 2.274.39 70.37 688.85 9.77 72.529 2,800.00 2,541.76 2,265.30 2,354.09 9.44 4.14 -157.41 -252.42 306.40 760.74 760.38 10.38 73.410 2,900.00 2,838.86 2,447.82 2,432.25 10.11 4.54 -157.41 -252.42 306.40 760.74 760.38 10.38 73.410 2,900.00 2,838.88 2,600.24 2,685.51 11.47 5.34 -156.78 -310.25 349.77 920.02 908.38 12.25 75.179 3,000.00 2,775.26 2,775.26 2,776.23 12.84 6.15 156.78 -310.25 349.77 920.02 908.38 12.25 75.179 3,000.00 3,013.29 2,775.20 2,776.20 2,7									240.66	340.51	335,36	5.15	66.104			
1,837.10 1,822.29 1,778.00 1,778.76 4.84 2.18 -155.72 -158.85 240.33 410.83 404.40 6.23 65.899 1,900.00 1,881.61 1,831.25 1,830.76 4.99 2.30 -156.43 -162.25 240.30 435.07 428.53 6.84 66.524 2,000.00 1,975.52 1,121.15 1,910.03 5.88 2.50 -157.17 -170.80 255.20 475.84 468.80 7.05 67.539 2,100.00 2,070.23 1,92.16 1,990.06 6.19 2.72 -157.51 -151.57 261.68 516.52 510.96 7.56 68.546 2,200.00 2,168.83 2,068.13 2,065.70 6.82 2.86 -157.65 -193.64 250.00 563.24 555.14 8.10 69.571 2,000.00 2,258.84 2,068.13 2,065.70 6.82 2.86 -157.65 -193.64 250.00 563.24 555.14 8.10 69.571 2,000.00 2,258.84 2,146.47 2,141.34 7.46 3.22 1.757.65 -193.64 250.00 563.24 555.14 8.10 69.571 2,000.00 2,258.84 2,269.13 2,065.70 6.82 2.86 -157.65 -193.64 250.00 563.24 555.14 8.10 69.571 2,000.00 2,476.45 2,271.09 8.11 3.50 -157.67 2,211.89 267.9 669.82 649.00 9.20 71.522 2,500.00 2,447.45 2,291.03 2,234.69 9.44 4.14 -157.19 2.25.90 2,000.00 2,477.82 2,478.22 2,432.25 10.11 4.54 -157.19 -271.53 322.49 813.37 802.39 10.99 74.020 2,800.00 2,478.82 2,500.30 2,478.82 2,500.30 1,478.82 2,500.30 2,478.82 2,500.36 1 10.79 4.91 -156.99 2.284.87 2,000.00 2,834.88 2,000.24 2,585.51 11.47 5.34 -156.78 310.25 349.77 92.00 2,900.83 2,580.00 2,680.40 12.15 5.76 156.59 2.384.79 331.46 38.61 974.20 961.32 12.88 75.21 3,000.00 3,000.					3.98		-154.43	-153.96	241.49	365.05	359.44	5.61	65.017			
1,900.00 1,881.61 1,831.25 1,830.76 4.99 2.30 -156.43 -162.65 243.30 435.07 425.53 6.54 66.524 2,000.00 1,875.92 1,912.15 1,911.03 5.58 2.50 -157.17 -770.80 255.20 475.84 468.80 7.05 67.539 2,000.00 2,702.23 1,992.18 1,990.05 6.19 2.72 157.51 -181.57 261.68 15.62 610.96 7.56 68.546 2,200.00 2,464.53 2,069.13 2,065.70 6.82 2.96 157.65 193.64 260.09 563.24 555.14 8.10 69.571 2,300.00 2,544.53 2,069.13 2,065.70 6.82 2.96 157.65 193.64 260.09 563.24 555.14 8.10 69.571 2,300.00 2,541.76 2,201.76 2,201.76 2,201.76 6.82 6.82 6.82 6.82 6.82 6.82 6.82 6.8	1,800.00	1,787.21	1,750.84	1,750.69	4.45	2.12	-155.43	-157.24	244.50	396.99	390.92	6.06	65.475			
1,900.00 1,881.61 1,831.25 1,830.76 4.99 2.30 -156.43 -152.65 249.30 435.07 428.53 6.54 66.524 2,000.00 1,975.52 1,912.15 1,911.03 5.58 2.50 1,571.7 1,700.00 25.50 478.84 468.80 7.05 67.539 2,100.00 2,070.23 1,982.18 1,980.06 6.19 2,72 1,167.51 -181.57 281.83 518.52 510.98 7.56 68.546 2,200.00 2,164.33 2,069.13 2,069.70 6.52 2.96 1,67.65 -193.64 269.09 563.24 555.14 8.10 69.571 2,300.00 2,258.84 2,146.47 2,141.34 7.46 3.22 1,575.67 -207.27 2,77.65 608.82 601.17 8.65 70.514 2,400.00 2,353.15 2,218.76 2,211.89 8.11 3.50 1,575.62 -221.18 286.79 668.26 640.06 9.20 71.522 2,500.00 2,447.45 2,291.03 2,281.55 8.77 3.80 1,575.52 -221.18 286.79 668.26 640.06 9.20 71.522 2,500.00 2,447.45 2,291.03 2,281.55 8.77 3.80 1,575.52 -225.86 2,974.3 708.73 608.96 9.77 72.529 2,500.00 2,447.45 2,243.25 10.11 4.54 1,57.19 -271.53 322.49 813.37 802.39 10.99 74.020 10.90 74.020 10.90 10.90 10.90 10.90 10.90 10.90 10.90 10.90 10.90 10.90 10.90 10.90 10.90 10.90 10.90 74.020 10.90 10.90 10.90 10.90 10.90 10.90 10.90 10.90 10.90 10.90 74.020 10.90	1,837.10	1,822.29	1,779.00	1,778.76	4.64	2.18	-155.72	-158.85	246.03	410.63	404.40	6.23	65.899			
2,100.00         2,070.23         1,992.18         1,980.06         6,19         2,72         -157.51         -181.57         281.68         518.52         519.96         7,56         88.546           2,200.00         2,164.23         2,069.13         2,065.70         8.82         2,96         -157.65         -193.64         2,690.99         653.24         555.14         8.10         69.971           2,300.00         2,258.84         2,146.47         2,141.34         7,46         3.22         -157.67         -207.27         277.65         608.82         601.17         8.65         70.514           2,400.00         2,353.16         2,218.76         2,211.69         8.11         3.50         -157.65         -235.86         297.43         708.73         608.66         9.07         72.529           2,500.00         2,447.65         2,280.30         2,344.06         9.44         4.14         -157.19         -271.83         322.49         813.37         802.39         10.99         7.020           2,800.00         2,730.37         2,822.45         2,503.61         10.79         4.91         -156.99         -289.47         33.49         866.74         855.14         11.60         74.724           2,800.00 </td <td>1,900.00</td> <td>1,881.61</td> <td>1,831.25</td> <td>1,830.76</td> <td>4.99</td> <td>2.30</td> <td>-156.43</td> <td>-162.65</td> <td>249.30</td> <td>435.07</td> <td>428.53</td> <td>6.54</td> <td>66,524</td> <td></td> <td></td> <td></td>	1,900.00	1,881.61	1,831.25	1,830.76	4.99	2.30	-156.43	-162.65	249.30	435.07	428.53	6.54	66,524			
2,100.00         2,070.23         1,992.18         1,990.06         6,19         2,72         1,75.51         -181.57         261.68         518.52         510.96         7,56         68,46           2,200.00         2,268.45         3,206.57         6,82         2,96         -157.65         -183.64         269.09         563.24         556.14         8.10         69.571           2,300.00         2,258.84         2,146.47         2,141.34         7,46         3,22         -157.67         -207.27         277.68         68.26         649.06         9,20         71.522           2,500.00         2,447.46         2,221.69         8.11         3,50         -157.55         -236.86         297.43         706.73         698.66         9.77         72.529           2,600.00         2,644.76         2,263.00         9,44         4,14         -157.19         -271.53         322.49         813.37         802.39         10.99         74.020           2,800.00         2,730.37         2,522.45         2,603.61         10.79         4.91         -156.99         -289.47         334.96         866.74         885.14         11.60         74.724           2,900.00         2,914.89         2,686.03         2,686.04 <td>2,000.00</td> <td>1,975.92</td> <td>1,912.15</td> <td>1,911.03</td> <td>5.58</td> <td>2.50</td> <td>-157.17</td> <td>-170.80</td> <td>255,20</td> <td>475.84</td> <td>468.80</td> <td>7.05</td> <td>67.539</td> <td></td> <td></td> <td></td>	2,000.00	1,975.92	1,912.15	1,911.03	5.58	2.50	-157.17	-170.80	255,20	475.84	468.80	7.05	67.539			
2,200.00         2,164.53         2,069.13         2,065.70         6.82         2,88         -167.65         -193.64         269.09         563.24         555.14         8.10         69.571           2,300.00         2,258.84         2,146.47         2,241.58         8.11         3.50         -157.62         -221.18         268.79         6682.26         649.06         9.20         71.522           2,500.00         2,447.45         2,291.03         2,281.65         8.77         3.80         -157.55         -238.66         297.43         708.73         689.69         9.77         725.29           2,500.00         2,541.76         2,281.89         9.44         4.14         -157.19         -271.53         322.49         813.37         802.39         10.39         73.410           2,800.00         2,530.37         2,522.45         2,503.61         10.79         4.91         -156.99         -288.47         334.96         866.74         855.14         11.60         74.724           2,800.00         2,818.98         2,860.32         2,669.40         12.15         5.76         -156.99         -314.25         349.77         920.62         908.38         12.25         756.179           3,000.00         2,918.	2,100.00	2,070.23	1,992.18	1,990.06	6.19	2.72	-157.51									
2,400,00 2,353,16 2,218,76 2,211.89 8.11 3.50 -157.62 -221.18 296,79 658,28 649,06 9.20 71,522 2,500,00 2,447.45 2,291.03 2,281.65 8.77 3.80 -157.55 236.86 297.43 708.73 698.96 9.77 72,529 2,500,00 2,541.76 2,366.30 2,345.49 9.44 4.14 -167.41 -252.42 309.40 760.74 750.38 10.38 73.410 2,700,00 2,636.06 2,447.82 2,432.25 10.11 4.54 -157.19 -271.53 322.49 813.37 802.39 10.99 74.020 2,800.00 2,730.37 2,522.45 2,603.61 10.79 4.91 -156.99 -289.47 334.96 866.74 855.14 11.60 74.724 2,900.00 2,824.68 2,608.24 2,585.51 11.47 5.34 -156.78 -310.25 349.77 920.62 908.38 12.25 75.179 3,000.00 2,918.89 2,680.03 2,686.04 12.15 5.76 -156.59 -331.46 346.16 974.20 961.32 12.88 75.621 3,100.00 3,013.29 2,775.28 2,745.23 12.84 6.16 -156.48 -350.09 378.19 1,027.75 1,014.25 13.50 76.102 3,200.00 3,101.29 2,775.28 2,745.23 12.84 6.16 -156.48 -350.09 378.19 1,027.75 1,014.25 13.50 76.102 3,200.00 3,201.90 2,940.56 2,802.84 14.22 7.01 -156.25 -389.55 392.34 1,081.89 1,067.75 14.14 76.511 3,300.00 3,201.90 2,940.56 2,802.84 14.22 7.01 -156.25 -389.50 407.42 1,138.02 1,121.23 14.79 76.791 3,400.00 3,202.21 3,024.66 2,893.58 14.91 7.47 -156.14 409.93 422.30 1,190.17 1,174.71 15.46 78.998 3,500.00 3,201.90 3,102.66 2,803.58 14.91 7.47 -156.14 409.93 422.30 1,190.17 1,174.71 15.46 78.998 3,500.00 3,408.82 3,112.30 3,066.83 15.60 7.97 -155.98 431.86 437.08 1,244.11 1,227.95 16.16 76.998 3,500.00 3,767.74 3,477.67 3,414.08 18.38 10.04 -155.78 453.04 450.11 1,298.13 1,385.10 18.41 76.245 3,900.00 3,767.74 3,477.67 3,414.08 18.38 10.04 -155.47 -530.6 489.83 1,455.83 1,4	2,200.00	2,164.53	2,069.13	2,065.70	6.82	2.96	-157.65	-193.64	269.09	563.24	555.14	8.10	69.571			
2,400,00         2,353,15         2,218,76         2,211,89         8,11         3,50         -157,62         -221,18         2,96,79         658,26         649,06         9,20         71,522           2,500,00         2,447,45         2,291,03         2,281,65         8,77         3,80         -157,55         -235,96         297,43         708,73         698,96         9,77         72,529           2,600,00         2,541,76         2,366,30         2,384,09         9,44         4,14         -167,19         -271,53         322,49         813,37         802,39         10,99         74,020           2,800,00         2,780,37         2,522,45         2,503,81         10,79         4,91         -156,99         -288,47         334,96         866,74         855,14         11,60         74,724           2,900,00         2,780,37         2,522,45         2,503,81         10,79         4,91         -156,59         -31,46         366,74         855,14         11,60         74,724           2,900,00         2,918,88         2,580,80         2,686,40         12,15         5,76         +156,59         -31,46         942,00         90,32         12,88         76,621           3,100,00         3,013,29         2,77	2,300.00	2,258.84	2,146.47	2,141.34	7.46	3.22	-157.67	-207.27	277.65	609.82	601.17	8.65	70.514			
2,500.00         2,447.45         2,291.03         2,281.65         8.77         3.80         -157.55         -235.86         297.43         708.73         698.96         9.77         72.529           2,600.00         2,541.76         2,366.30         2,354.09         9.44         4.14         -157.41         -252.42         309.40         760.74         750.38         10.36         73.410           2,700.00         2,586.06         2,447.82         2,432.25         10.11         4.54         -157.41         -252.42         309.40         760.74         750.38         10.39         74.020           2,800.00         2,730.37         2,522.45         2,503.61         10.79         4.91         -156.99         -289.47         334.96         866.74         855.14         11.60         74.724           2,900.00         2,818.88         2,686.03         2,688.40         12.15         5.76         -156.59         -331.46         364.61         974.20         981.32         12.88         75.621           3,000.00         3,107.60         2,855.47         2,821.77         13.53         6.57         -156.36         -350.09         378.19         1,027.75         1,014.25         13.50         76.191	2,400.00	2,353.15														
2,600.00         2,541,76         2,366.30         2,354,09         9,44         4,14         -157.41         -252.42         309.40         760.74         750.38         10,36         73,410           2,700.00         2,636.06         2,447.82         2,432.25         10,11         4,54         -157.19         -271.53         322.49         813.37         802.39         10,99         74,020           2,800.00         2,730.37         2,522.45         2,503.61         10,79         4,91         -156.99         -284.77         384.96         866.74         855.14         11.60         74,724           2,800.00         2,824.88         2,696.03         2,689.40         12.15         5,76         -156.59         -331.46         364.61         974.20         961.32         12.88         75.521           3,100.00         3,013.29         2,775.28         2,745.23         12.24         6.15         -156.48         -350.09         378.19         1,027.75         1,014.25         13.50         76.102           3,200.00         3,201.90         2,940.36         2,902.84         14.22         7.01         -156.25         -389.50         407.42         1,136.02         1,121.23         14.79         76.791	2,500.00	2,447.45														
2,700.00 2,836.06 2,447.82 2,432.25 10.11 4.54 -157.19 -271.53 322.49 813.37 802.39 10.99 74.020  2,800.00 2,730.37 2,522.45 2,503.61 10.79 4.81 -156.99 -289.47 334.96 866.74 855.14 11.60 74.724  2,900.00 2,824.68 2,500.24 2,585.51 11.47 5.34 1.56.78 -310.25 349.77 92.062 908.38 12.25 75.179  3,000.00 2,918.98 2,696.03 2,669.40 12.15 5.76 -156.59 -331.46 364.61 974.20 961.32 12.88 75.621  3,100.00 3,013.29 2,775.28 2,745.23 12.84 6.15 -156.48 -350.09 376.19 1,027.75 1,014.25 13.50 76.102  3,200.00 3,107.60 2,855.47 2,821.77 13.53 6.57 -156.36 -369.35 392.34 1,081.89 1,067.75 14.14 76.511  3,300.00 3,201.90 2,940.36 2,902.84 14.22 7.01 -156.25 -389.50 407.42 1,136.02 1,121.23 14.79 76.791  3,400.00 3,296.21 3,024.96 2,983.58 14.91 7.47 -156.14 -409.93 422.30 1,190.17 1,174.71 15.46 76.999  3,500.00 3,484.82 3,192.00 3,142.54 16.29 8.44 -155.78 455.04 450.11 1,298.13 1,281.28 16.65 77.027  3,700.00 3,673.44 3,390.33 3,330.89 17.68 9.56 -155.13 -508.49 478.06 1,403.51 1,385.10 18.41 76.245  3,900.00 3,673.44 3,390.33 3,330.89 17.68 9.56 -155.13 -508.49 478.06 1,403.51 1,385.10 18.41 76.245  3,900.00 3,862.05 3,660.25 3,610.3 190.8 10.8 19.21 10.85 -155.16 -586.41 515.08 1,559.89 1,557.86 19.99 75.764  4,000.00 3,862.05 3,752.01 3,675.50 20.18 11.52 -154.49 460.05 15.50 1.50 1.50 1.50 1.50 1.50 1.50	2,600.00	2,541.76														
2,900.00 2,824.88 2,608.24 2,585.51 11.47 5.34 -156.78 -310.25 349.77 920.62 908.38 12.25 75.179 3,000.00 2,919.88 2,698.03 2,698.04 12.15 5.76 -156.59 -331.46 364.61 974.20 961.32 12.88 75.621 3,100.00 3,013.29 2,775.28 2,745.23 12.84 6.15 -156.48 -350.09 378.19 1,027.75 1,014.25 13.50 76.102 3,200.00 3,107.60 2,855.47 2,821.77 13.53 6.57 -156.36 -369.35 392.34 1,081.89 1,067.75 14.14 76.611 3,300.00 3,201.90 2,940.36 2,902.84 14.22 7.01 -156.25 -389.50 407.42 1,136.02 1,121.23 14.79 76.791 3,400.00 3,296.21 3,024.96 2,983.58 14.91 7.47 -156.14 -409.93 422.30 1,190.17 1,174.71 15.46 76.999 3,500.00 3,890.52 3,112.30 3,066.83 15.60 7.97 -155.98 -431.85 437.08 12.44.11 1,227.95 16.16 76.998 3,800.00 3,890.82 3,192.00 3,142.54 16.29 8.44 -155.78 -453.04 450.11 1,298.13 1,281.28 16.85 77.027 3,700.00 3,579.13 3,306.11 3,250.86 16.99 9.10 -155.40 -484.85 466.68 1,351.15 1,333.46 17.69 76.385 3,800.00 3,767.74 3,477.87 3,414.08 16.38 10.04 -154.87 -533.06 489.83 1,455.83 1,456.68 19.15 76.026 4,000.00 3,862.05 3,569.25 3,501.03 19.08 10.54 -154.62 -558.45 501.94 1,507.92 1,488.02 19.90 75.764 4,019.18 3,880.14 3,589.56 3,520.38 19.21 10.65 -154.67 -564.01 504.60 1,517.86 1,497.80 20.05 75.664 4,010.00 3,856.72 3,672.75 3,599.80 19.70 11.08 -154.76 -564.01 504.60 1,517.86 1,497.80 20.05 75.664 4,000.00 4,443.66 3,390.11 3,820.08 21.01 12.44 -155.21 -650.72 545.34 1,694.80 1,672.06 22.74 74.535 4,500.00 4,443.66 4,100.35 4,006.71 21.63 13.55 -155.06 -704.74 572.19 1,773.36 1,749.26 24.10 73.588	2,700.00															
2,900.00 2,824.88 2,608.24 2,585.51 11.47 5.34 -156.78 -310.25 349.77 920.62 908.38 12.25 75.179 3,000.00 2,919.88 2,698.03 2,698.04 12.15 5.76 -156.59 -331.46 364.61 974.20 961.32 12.88 75.621 3,100.00 3,013.29 2,775.28 2,745.23 12.84 6.15 -156.48 -350.09 378.19 1,027.75 1,014.25 13.50 76.102 3,200.00 3,107.60 2,855.47 2,821.77 13.53 6.57 -156.36 -369.35 392.34 1,081.89 1,067.75 14.14 76.611 3,300.00 3,201.90 2,940.36 2,902.84 14.22 7.01 -156.25 -389.50 407.42 1,136.02 1,121.23 14.79 76.791 3,400.00 3,296.21 3,024.96 2,983.58 14.91 7.47 -156.14 -409.93 422.30 1,190.17 1,174.71 15.46 76.999 3,500.00 3,890.52 3,112.30 3,066.83 15.60 7.97 -155.98 -431.85 437.08 12.44.11 1,227.95 16.16 76.998 3,800.00 3,890.82 3,192.00 3,142.54 16.29 8.44 -155.78 -453.04 450.11 1,298.13 1,281.28 16.85 77.027 3,700.00 3,579.13 3,306.11 3,250.86 16.99 9.10 -155.40 -484.85 466.68 1,351.15 1,333.46 17.69 76.385 3,800.00 3,767.74 3,477.87 3,414.08 16.38 10.04 -154.87 -533.06 489.83 1,455.83 1,456.68 19.15 76.026 4,000.00 3,862.05 3,569.25 3,501.03 19.08 10.54 -154.62 -558.45 501.94 1,507.92 1,488.02 19.90 75.764 4,019.18 3,880.14 3,589.56 3,520.38 19.21 10.65 -154.67 -564.01 504.60 1,517.86 1,497.80 20.05 75.664 4,010.00 3,856.72 3,672.75 3,599.80 19.70 11.08 -154.76 -564.01 504.60 1,517.86 1,497.80 20.05 75.664 4,000.00 4,443.66 3,390.11 3,820.08 21.01 12.44 -155.21 -650.72 545.34 1,694.80 1,672.06 22.74 74.535 4,500.00 4,443.66 4,100.35 4,006.71 21.63 13.55 -155.06 -704.74 572.19 1,773.36 1,749.26 24.10 73.588	2,800.00	2.730.37	2.522.45	2.503.61	10.79	4 91	-156 99	-289 47	334.06	866 74	855 14	11 60	74 724			
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4.000.00 3,862.05 3,569.25 3,501.03 19.08 10.54 -154.62 -558.45 501.94 1,507.92 1,488.02 19.90 75.764 4.019.18 3,880.14 3,589.56 3,520.38 19.21 10.65 -154.57 -564.01 504.60 1,517.86 1,497.80 20.05 75.686 4.100.00 3,956.72 3,672.75 3,599.80 19.70 11.08 -154.76 -586.41 515.08 1,558.39 1,537.67 20.71 75.243  4.200.00 4,052.45 3,752.01 3,675.50 20.18 11.52 -154.98 -607.74 525.00 1,606.00 1,584.60 21.40 75.048 4.300.00 4,149.12 3,826.96 3,746.90 20.62 11.96 -155.14 -628.35 534.71 1,651.44 1,629.38 22.07 74.832 4.400.00 4,246.62 3,906.11 3,822.08 21.01 12.44 -155.21 -650.72 545.34 1,694.80 1,672.06 22.74 74.535 4,500.00 4,344.84 3,997.17 3,908.47 21.34 12.97 -155.17 -676.60 557.88 1,735.70 1,712.28 23.42 74.107 4,600.00 4,443.66 4,100.35 4,006.71 21.63 13.55 -155.06 -704.74 572.19 1,773.36 1,749.26 24.10 73.588																
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4,100.00 3,956.72 3,672.75 3,599.80 19.70 11.08 -154.76 -586.41 515.08 1,558.39 1,537.67 20.71 75,243  4,200.00 4,052.45 3,752.01 3,675.50 20.18 11.52 -154.98 -607.74 525.00 1,606.00 1,584.60 21.40 75,048  4,300.00 4,149.12 3,826.96 3,746.90 20.62 11.96 -155.14 -628.35 534.71 1,651.44 1,629.38 22.07 74.832  4,400.00 4,246.62 3,906.11 3,822.08 21.01 12.44 -155.21 -650.72 545.34 1,694.80 1,672.06 22.74 74.535  4,500.00 4,344.84 3,997.17 3,908.47 21.34 12.97 -155.17 -676.60 557.88 1,735.70 1,712.28 23.42 74.107  4,600.00 4,443.66 4,100.35 4,006.71 21.63 13.55 -155.06 -704.74 572.19 1,773.36 1,749.26 24.10 73.588																
4,300.00 4,149.12 3,826.96 3,746.90 20.62 11.96 -155.14 -628.35 534.71 1,651.44 1,629.38 22.07 74,832 4,400.00 4,246.62 3,906.11 3,822.08 21.01 12.44 -155.21 -650.72 545.34 1,694.80 1,672.06 22.74 74,535 4,500.00 4,344.84 3,997.17 3,908.47 21.34 12.97 -155.17 -676.60 557.88 1,735.70 1,712.28 23.42 74,107 4,600.00 4,443.66 4,100.35 4,006.71 21.63 13.55 -155.06 -704.74 572.19 1,773.36 1,749.26 24.10 73.588																
4,300.00 4,149.12 3,826.96 3,746.90 20.62 11.96 -155.14 -628.35 534.71 1,651.44 1,629.38 22.07 74,832 4,400.00 4,246.62 3,906.11 3,822.08 21.01 12.44 -155.21 -650.72 545.34 1,694.80 1,672.06 22.74 74,535 4,500.00 4,344.84 3,997.17 3,908.47 21.34 12.97 -155.17 -676.60 557.88 1,735.70 1,712.28 23.42 74,107 4,600.00 4,443.66 4,100.35 4,006.71 21.63 13.55 -155.06 -704.74 572.19 1,773.36 1,749.26 24.10 73.588	4,200.00	4,052.45	3,752.01	3,675.50	20.18	11.52	-154.98	-607.74	525.00	1,606,00	1.584.60	21.40	75.048			
4,400.00     4,246.62     3,906.11     3,822.08     21.01     12.44     -155.21     -850.72     545.34     1,694.80     1,672.06     22.74     74,535       4,500.00     4,344.84     3,997.17     3,908.47     21.34     12.97     -155.17     -676.60     557.88     1,735.70     1,712.28     23.42     74,107       4,600.00     4,443.66     4,100.35     4,006.71     21.63     13.55     -155.06     -704.74     572.19     1,773.36     1,749.26     24.10     73.588																
4,500.00 4,344.84 3,997.17 3,908.47 21.34 12.97 -155.17 -676.60 557.88 1,735.70 1,712.28 23.42 74,107 4,600.00 4,443.66 4,100.35 4,006.71 21.63 13.55 -155.06 -704.74 572.19 1,773.36 1,749.26 24.10 73.588										-						
4,600.00 4,443.66 4,100.35 4,006.71 21.63 13.55 -155.06 -704.74 572.19 1,773.36 1,749.26 24.10 73.588																



Anticollision Report

Company:

BILL BARRETT CORP

Project:

CARBON COUNTY, UT (NAD 27)

Reference Site:

**SECTION 28 T12S R15E** 

Site Error:

0.00ft

Reference Well:

PR PR UF 2-28D-12-15

Well Error:

0.00ft

Reference Wellbore

Reference Design:

PR PR UF 2-28D-12-15

Design #1

Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference:

**Survey Calculation Method:** 

Output errors are at Database:

Offset TVD Reference:

Well PR PR UF 2-28D-12-15

KB @ 7522.00ft

KB @ 7522.00ft

True

Minimum Curvature

2.00 sigma Compass

urvey Prog Refer		0-MWD					PR PR 8-28D-						Offset Site Error: Offset Well Error:	0.00 f
Relei Measured	Vertical			Semi Major					Dista					
Depth (ft)	Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbon +N/-S (ft)	e Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
4,800.00	4,642.59	4,295,61	4.193.06	22.07	14.61	-154.74	-756,51	598.99	1,839.12	1,813,83	25.29	72.725		
4,900.00	4,742.46	4,405.99	4,298,61	22.21	15.21	-154.43	-785.34	613.51	1,866.99	1,841.10	25.89	72.123		
4,990.55	4,833.00	4,501.89	4,390,20	22.31	15.75	116.61	-811.37	624.84	1,889.12	1.862.70	26.42	71.505		
5,000.00	4,842.45	4,510.00	4,397.93	22.32	15.80	116.66	-813.68	625.72	1,891.29	1,864.82	26.47	71.452		
5,100.00	4,942.45	4,601.11	4,484.72	22.42	16.31	117.23	-839,54	635.73	1,914.43	1,887.40	27.03	70,830		
5,200.00	5,042.45	4,707.73	4,586.34	22.53	16.91	117.88	-869.68	647.28	1,937.57	1,909.92	27.65	70.079		
5,300.00	5,142.45	4,793.00	4,667.57	22.63	17.39	118.40	-893.86	656.60	1,961.04	1,932.87	28,17	69.603		
5,400.00	5,242.45	4,895.98	4,765.62	22.74	17.98	119.01	-923.31	667.75	1,984.75	1,955.97	28.78	68.963		
5,500.00	5,342.45	4,994.22	4,859.27	22.85	18.53	119.57	-951.08	678.24	2,008.34	1,978.99	29.35	68.427		
5,600.00	5,442.45	5,105.01	4,965.05	22.96	19.14	120.19	-982.01	689.59	2,031.56	2,001.59	29.96	67.799		
5,700.00	5,542.45	5,204.87	5,060.49	23.07	19.68	120.73	-1,009.68	699.45	2,054.53	2,024.00	30.53	67.295		
5,800.00	5,642.45	5,309.11	5,160.18	23.19	20.25	121.29	-1,038.41	709.61	2,077.48	2,046.37	31.11	66.778		
5,900.00	5,742.45	5,422.74	5,269.14	23.30	20.86	121.86	-1,068.80	720.28	2,099.84	2,068.13	31.72	66.202		
6,000.00	5,842.45	5,545.32	5,386.91	23.42	21.50	122.46	-1,101.16	730.71	2,121.46	2,089.11	32.36	65.567		
6,100.00	5,942.45	5,630.21	5,468.65	23.54	21.93	122.86	-1,122.92	737.89	2,142.73	2,109.90	32.83	65.267		
6,200.00	6,042.45	5,775.23	5,608.61	23.66	22.64	123.50	-1,158.85	750.12	2,163.76	2,130.24	33.51	64.562		
6,300.00	6,142.45	5,888.95	5,718.97	23.78	23.17	123.97	-1,185.13	757.89	2,182.42	2,148.35	34.07	64.055		
6,400.00	6,242.45	6,021.87	5,848.37	23.90	23.76	124.47	-1,214.14	766.96	2,200.48	2,165.81	34.67	63.469		
6,500.00	6,342.45	6,192.97	6,016.13	24.03	24.43	124.99	-1,245.80	778.23	2,216.68	2,181.35	35.34	62.731		
6,600.00	6,442.45	6,393.67	6,214.45	24.16	25.08	125.51	-1,275.57	785.39	2,227.72	2,191.68	36.04	61.806		
6,700.00	6,542.45	6,479.34	6,299.24	24.28	25.35	125.74	-1,287.73	787.18	2,237.76	2,201.32	36.44	61.416		
6,800.00	6,642.45	6,588.00	6,406.73	24.41	25.63	126.03	-1,303.43	789.67	2,248.14	2,211.29	36.85	61.002		
6,900.00	6,742.45	6,706.64	6,524.28	24.54	25.92	126.32	-1,319.27	792.17	2,257.77	2,220.49	37.28	60.555		
7,000.00	6,842.45	6,825.65	6,642.38	24.68	26.21	126.58	-1,333.74	794.47	2,266.58	2,228.86	37.72	60.093		
7,100.00	6,942.45	6,945.01	6,761.00	24.81	26.50	126.81	-1,346.81	796.54	2,274.54	2,236.39	38.15	59.616		
7,200.00	7,042.45	7,064.67	6,880.08	24.94	26.80	127.02	-1,358.48	798.39	2,281.65	2,243.06	38.59	59.127		
7,300.00	7,142.45	7,184.61	6,999.57	25.08	27.09	127.20	-1,368.73	800.01	2,287.89	2,248.87	39.03	58.623		
7,400.00	7,242.45	7,304.79	7,119.42	25.22	27.39	127.35	-1,377.53	801.40	2,293.26	2,253.80	39.47	58.106		
7,470.55	7,313.00	7,389.70	7,204.16	25.31	27.59	127.45	-1,382.87	802.25	2,296.52	2,256.74	39.78	57.733 SF		

# **Bill Barrett Corporation**

# **BILL BARRETT CORPORATION**

Anticollision Report

Company:

BILL BARRETT CORP

Project:

CARBON COUNTY, UT (NAD 27) SECTION 28 T12S R15E

Reference Site:

0.00ft

Site Error: Reference Well:

PR PR UF 2-28D-12-15

Well Error:

0.00ft

Reference Wellbore PR PR UF 2-28D-12-15

Reference Design:

Design #1

Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference:

**Survey Calculation Method:** 

Output errors are at Database:

Offset TVD Reference:

Well PR PR UF 2-28D-12-15

KB @ 7522.00ft

KB @ 7522.00ft

True

Minimum Curvature

2.00 sigma Compass

Offset De: Survey Progr	ann: 0-M		JN 28 T12	S R15E - P	R PR UF	16X-21D-1	2-15 - PR PR	UF 16X-21	D-12-15 - [	Design #1			Offset Site Error: Offset Well Error:	0.00
Refere	ence	Offs	et	Semi Major	Axis				Dista	ance			Onset Well Ellot.	0.00
fleasured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toofface (°)	Offset Wellbo +N/-S (ft)	re Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
0.00	0.00	0.00	0.00	0.00	0.00	86.53	1.02	16.40	16.43					
100.00	100.00	100.00	100.00	0.09	0.09	86.53	1.02	16.40	16.43	16.25	0.19	88.085		
200.00	200.00	200.00	200.00	0.32	0.32	86.53	1.02	16.40	16.43	15.80	0.64	25.834		
300,00	300.00	300.00	300.00	0.54	0.54	86.53	1.02	16.40	16.43	15.35	1.09	15.137		
400.00	400.00	400.00	400.00	0.77	0.77	86.53	1.02	16.40	16.43	14.90	1.54	10.704		
500.00	500.00	500.00	500.00	0.99	0.99	86.53	1.02	16.40	16.43	14.45	1.98	8.280		
600.00	600.00	600.00	600.00	1.22	1.22	86,53	1.02	16.40	16.43	14.00	2.43	6.751		
700.00	700.00	700.00	700.00	1.44	1.44	86,53	1.02	16.40	16.43	13.55	2.88	5.698		
800.00	800.00	00,008	800.00	1.67	1.67	86.53	1.02	16.40	16.43	13.10	3.33	4.930		
900.00	900.00	900.00	900.00	1.89	1.89	86.53	1.02	16.40	16.43	12.65	3.78	4.344		
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	86.53	1.02	16.40	16.43	12.20	4.23	3.883		
1,060.00	1,060.00	1,060.00	1,060.00	2.25	2.25	86.53	1.02	16.40	16.43	11.93	4.50	3.650 CC	, ES	
1,100.00	1,100.00	1,099.82	1,099.82	2.34	2.34	175.00	1.31	16.59	16.99	12.32	4.67	3.635 SF		
1,200.00	1,199.91	1,199.00	1,198.92	2.54	2.56	168.29	4.53	18.72	23.45	18.36	5.09	4.605		
1,300.00	1,299.56	1,296.98	1,296.56	2.75	2.78	161.86	11.23	23.15	37.50	31.98	5.52	6.798		
1,400.00	1,398.75	1,392.96	1,391.79	2.99	3.01	157.92	21.16	29.70	59.11	53.17	5,94	9.946		
1,500.00	1,497.30	1,486.18	1,483.73	3.27	3.26	155.58	33.99	38.17	88.03	81.65	6.38	13.803		
1,600.00	1,595.02	1,576.01	1,571.66	3.59	3,53	154.07	49.29	48.27	123.90	117.08	6.82	18.170		
1,700.00	1,691.71	1,661.92	1,655.02	3.98	3.84	152.96	66.60	59.70	166.39	159.12	7.27	22.880		
1,800.00	1,787.21	1,743.47	1,733.39	4.45	4.16	152.06	85.44	72.14	215.10	207.36	7.74	27.784		
1,837.10	1,822.29	1,774.37	1,762.90	4.64	4.29	151.77	93.09	77.19	234.58	226.66	7.92	29.607		
1,900.00	1,881.61	1,827.65	1,813.77	4.99	4.54	151,79	106.31	85.92	268.03	259.76	8.26	32.433		
2,000.00	1,975.92	1,912.35	1,894.63	5.58	4.94	151.82	127.31	99.79	321.19	312.36	8.83	36.379		
2,100.00	2,070.23	1,997.04	1,975.50	6.19	5.35	151.84	148.32	113.66	374.36	364.94	9.41	39.768		
2,200.00	2,164.53	2,081.74	2,056.37	6.82	5.79	151.85	169.33	127.53	427.52	417.51	10,02	42.676		
2,300.00	2,258.84	2,166.44	2,137.24	7.46	6.23	151.86	190.34	141.40	480.69	470.05	10.64	45.191		
2,400.00	2,353.15	2,251.13	2,218.11	8.11	6.68	151.87	211.35	155.27	533.86	522.59	11.27	47.377		
2,500.00	2,447.45	2,335.83	2,298.98	8.77	7.14	151.88	232.36	169.14	587.02	575.11	11.91	49.287		
2,600.00	2,541.76	2,420.52	2,379.84	9.44	7.60	151.89	253.37	183.01	640.19	627.63	12.56	50.965		
2,700.00	2,636.06	2,505.22	2,460.71	10.11	8.07	151.89	274.37	196.88	693.35	680.13	13.22	52.447		
2,800.00	2,730.37	2,589.92	2,541.58	10.79	8.54	151.90	295.38	210.75	746.52	732.63	13.89	53.759		
2,900.00	2,824.68	2,674.61	2,622.45	11.47	9.02	151,90	316.39	224.62	799.68	785.13	14.56	54.930		
3,000.00	2,918.98	2,759.31	2,703.32	12.15	9.50	151.90	337.40	238.49	852.85	837.62	15.24	55.979		
3,100.00	3,013.29	2,844.00	2,784.18	12.84	9.98	151.91	358.41	252.36	906.02	890.10	15.92	56.923		
3,200.00	3,107.60	2,928.70	2,865.05	13.53	10.46	151.91	379.42	266,23	959.18	942.58	16.60	57.777		
3,300.00	3,201.90	3,013.40	2,945.92	14.22	10.95	151,91	400.43	280.10	1,012.35	995.06	17.29	58.551		
3,400.00	3,296.21	3,098.09	3,026.79	14.91	11.43	151.91	421.43	293.97	1,065.51	1,047.53	17.98	59.256		
3,500.00	3,390.52	3,182.79	3,107.66	15.60	11.92	151.91	442.44	307.84	1,118.68	1,100.00	18.68	59.899		
3,600.00	3,484.82	3,267.48	3,188.52	16.29	12.41	151.92	463.45	321.71	1,171.85	1,152.47	19.37	60.488		
3,700.00	3,579.13	3,352.18	3,269.39	16.99	12.90	151,92	484.46	335.58	1,225.01	1,204.94	20.07	61.030		
3,800.00	3,673.44	3,436.87	3,350.26	17.68	13.39	151.92	505.47	349.45	1,278.18	1,257.40	20.77	61.529		
3,900.00	3,767.74	3,521.57	3,431.13	18.38	13.88	151.92	526.48	363,32	1,331.34	1,309.87	21.48	61.991		
4,000.00	3,862.05	3,606.27	3,512.00	19.08	14.37	151.92	547.49	377.20	1,384.51	1,362.33	22.18	62.419		
4,019.18	3,880.14	3,622.51	3,527.51	19.21	14.47	151.92	551.52	379.86	1,394.71	1,372.39	22.32	62.497		
4,100.00	3,956.72	3,691.49	3,593.37	19.70	14.87	152.36	568.63	391.15	1,436.82	1,413.86	22.96	62.581		
4,200.00	4,052.45	3,778.23	3,676.19	20.18	15.38	152.79	590.14	405.36	1,486.52	1,462.80	23.71	62,689		
4,300.00	4,149.12	3,866.43	3,760.40	20.62	15.89	153.12	612.02	419.80	1,533.50	1,509.06	24.45	62.728		
4,400.00	4,246.62	3,955.96	3,845.89	21.01	16.41	153.36	634.23	434.46	1,577.73	1,552.58	25.16	62.713		
4,500.00	4,344.84	4,046.73	3,932.55	21.34	16.95	153,50	656.74	449.33	1,619.17	1,593.32	25.84	62,655		
4,600.00	4,443.66	4,138.61	4,020.28	21.63	17.48	153.57	679.53	464.38	1,657.77	1,631.27	26.50	62.563		
4,700.00	4,542.95	4,312.43	4,187.47	21.87	18.29	153.33	719.12	490.51	1,691.66	1,664.33	27.32	61.914		
4,800.00	4,642.59	4,510.68	4,381.26	22.07	19.01	153.08	753.87	513.46	1,717.13	1,689.04	28.09	61.135		



Anticollision Report

Company:

BILL BARRETT CORP

Project:

CARBON COUNTY, UT (NAD 27) **SECTION 28 T12S R15E** 

Reference Site: Site Error:

0.00ft

Reference Well:

PR PR UF 2-28D-12-15

Well Error:

Reference Wellbore

0.00ft

Reference Design:

PR PR UF 2-28D-12-15 Design #1

**Local Co-ordinate Reference:** 

**TVD Reference:** 

KB @ 7522.00ft

Well PR PR UF 2-28D-12-15

MD Reference: North Reference: KB @ 7522.00ft True

**Survey Calculation Method:** 

Minimum Curvature

Output errors are at Database:

2.00 sigma Compass

Offset TVD Reference:

Survey Prog													Offset Well Error:	0.00 f
Refer		Offse		Semi Major					Dista	nce				
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbor +N/-S (ft)	re Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
4,900.00	4,742.46	4,716.23	4,584.72	22.21	19.58	152.90	778.02	529.40	1,733.64	1,704.90	28.74	60.323		
4,990.55	4,833.00	4,906.19	4,774.15	22,31	19.94	63.46	789.45	536.95	1.740.56	1.717.47	23.09	75.377		
5,000.00	4,842.45	4,926.12	4,794.07	22.32	19.97	63.45	790.04	537.34	1,740,85	1,717,71	23.15	75.210		
5,100.00	4,942.45	5,074.52	4,942.45	22.42	20.14	63.42	791.27	538.15	1,741.46	1,717.83	23.63	73.708		
5,200.00	5,042.45	5,174.52	5,042,45	22.53	20.26	63.42	791.27	538.15	1,741.46	1,717.43	24.03	72.476		
5,300.00	5,142.45	5,274.52	5,142.45	22.63	20,37	63.42	791.27	538.15	1,741.46	1,717.03	24.43	71.274		
5,400.00	5,242.45	5,374.52	5,242.45	22.74	20.49	63.42	791.27	538.15	1,741.46	1,716.62	24.84	70.109		
5,500.00	5,342.45	5,474.52	5,342.45	22.85	20.61	63.42	791.27	538.15	1,741.46	1,716.21	25.25	68.982		
5,600.00	5,442.45	5,574.52	5,442.45	22.96	20.73	63.42	791.27	538.15	1,741.46	1,715.81	25.65	67.889		
5,700.00	5,542.45	5,674.52	5,542.45	23.07	20.85	63.42	791.27	538.15	1,741.46	1,715.40	26.06	66.830		
5,800.00	5,642.45	5,774.52	5,642.45	23.19	20.98	63.42	791.27	538.15	1,741.46	1,714.99	26.47	65.802		
5,900.00	5,742.45	5,874.52	5,742.45	23.30	21.10	63,42	791.27	538.15	1,741.46	1,714.59	26,87	64.804		
6,000.00	5,842.45	5,974.52	5,842.45	23,42	21.23	63.42	791.27	538.15	1,741.46	1,714.18	27.28	63.834		
6,100.00	5,942.45	6,074.52	5,942.45	23.54	21.36	63.42	791.27	538.15	1,741.46	1,713.77	27.69	62.892		
6,200.00	6,042.45	6,174.52	6,042,45	23.66	21.49	63.42	791.27	538.15	1,741.46	1,713.36	28.10	61.976		
6,300.00	6,142.45	6,274.52	6,142.45	23.78	21.62	63.42	791.27	538.15	1,741.46	1,712.95	28.51	61.085		
6,400.00	6,242.45	6,374.52	6,242.45	23.90	21.75	63,42	791.27	538.15	1,741.46	1,712.54	28.92	60.218		
6,500.00	6,342.45	6,474.52	6,342.45	24.03	21.89	63.42	791.27	538.15	1,741.46	1,712.13	29.33	59.374		
6,600.00	6,442.45	6,574.52	6,442.45	24.16	22.03	63,42	791.27	538.15	1,741.46	1,711.72	29.74	58.553		
6,700.00	6,542.45	6,674.52	6,542.45	24.28	22.16	63,42	791.27	538.15	1,741.46	1,711.31	30.15	57.752		
6,800.00	6,642.45	6,774.52	6,642.45	24.41	22.30	63.42	791.27	538.15	1,741.46	1,710.89	30.57	56.973		
6,900.00	6,742.45	6,874.52	6,742.45	24.54	22.44	63.42	791,27	538.15	1,741.46	1,710.48	30.98	56.212		
7,000.00	6,842.45	6,974.52	6,842.45	24.68	22.59	63,42	791.27	538.15	1,741.46	1,710.07	31.39	55.471		
7,100.00	6,942.45	7,074.52	6,942.45	24.81	22.73	63,42	791.27	538.15	1,741.46	1,709.65	31.81	54.748		
7,200.00	7,042.45	7,174.52	7,042.45	24.94	22.88	63,42	791.27	538.15	1,741.46	1,709.24	32,22	54.043		
7,300.00	7,142.45	7,274.52	7,142.45	25.08	23.02	63.42	791.27	538.15	1,741.46	1,708.82	32.64	53.355	•	
7,400.00	7,242.45	7,374.52	7,242.45	25.22	23.17	63.42	791.27	538.15	1,741,46	1.708.40	33.06	52.683		
7,470.55	7,313.00	7,445.07	7,313.00	25.31	23.27	63,42	791.27	538.15	1,741.46	1,708.11	33.35	52.219		



Anticollision Report

Company:

**BILL BARRETT CORP** 

Project:

CARBON COUNTY, UT (NAD 27)

Reference Site:

**SECTION 28 T12S R15E** 

Site Error: Reference Well: 0.00ft

Well Error:

PR PR UF 2-28D-12-15

Reference Wellbore

0.00ft PR PR UF 2-28D-12-15

Reference Design:

Design #1

Local Co-ordinate Reference:

TVD Reference:

Well PR PR UF 2-28D-12-15 KB @ 7522.00ft

KB @ 7522.00ft

MD Reference:

North Reference:

True

Survey Calculation Method:

Minimum Curvature

Output errors are at

2.00 sigma

Database:

Compass

Offset TVD Reference:

Depth (ft)  0.00 100.00 200.00 300.00 400.00 500.00 600.00 700.00 800.00 900.00 1,000.00 1,100.00 1,200.00 1,400.00 1,400.00 1,500.00 1,500.00 1,500.00	0.00 100.00 200.00 300.00 400.00 500.00 600.00 700.00 800.00 1,000.00 1,100.00 1,199.91 1,299.56 1,398.75	Offse Measured Depth (ft)  0.00 100.00 200.00 300.00 400.00 500.00 600.00 700.00 800.00 900.00 1,060.00 1,060.00 1,993.33 1,197.30 1,294.10	Vertical Depth (ft) 0.00 100.00 200.00 300.00 400.00 500.00 600.00 700.00 800.00 1,000.00 1,000.00	Semi Major Reference (ft) 0.00 0.09 0.32 0.54 0.77 0.99 1.22 1.44 1.67 1.89 2.12	Axis Offset (ft) 0.00 0.09 0.32 0.54 0.77 0.99 1.22 1.44 1.67 1.89 2.12	Highside Toolface (*) 86.42 86.42 86.42 86.42 86.42 86.42 86.42 86.42	Offset Wellborn +N/-S (ft) 3.05 3.05 3.05 3.05 3.05 3.05 3.05 3.05	e Centre +E/-W (ft) 48.43 48.43 48.43 48.43 48.43	Dista Between Centres (ft) 48.52 48.52 48.52 48.52 48.52 48.52	Between Ellipses (ft) 48.34 47.89 47.44 46.99 46.54	Minimum Separation (ft) 0.19 0.64 1.09 1.54	Separation Factor 260.091 76.281 44.695 31.607	Offset Well Error: Warning	0.00 f
Depth (tt)  0.00 100.00 200.00 300.00 400.00 500.00 600.00 700.00 800.00 900.00 1,000.00 1,100.00 1,200.00 1,300.00 1,400.00 1,500.00 1,500.00 1,500.00	0.00 100.00 200.00 300.00 400.00 500.00 700.00 800.00 900.00 1,060.00 1,100.00 1,299.56 1,398.75	0.00 100.00 200.00 300.00 400.00 500.00 600.00 700.00 800.00 1,000.00 1,060.00 1,099.33 1,197.30	0.00 100.00 200.00 300.00 400.00 500.00 600.00 700.00 800.00 900.00 1,000.00	0.00 0.09 0.32 0.54 0.77 0.99 1.22 1.44 1.67 1.89 2.12	0.00 0.09 0.32 0.54 0.77 0.99 1.22 1.44 1.67	86.42 86.42 86.42 86.42 86.42 86.42 86.42 86.42	+N/-S (ft) 3.05 3.05 3.05 3.05 3.05 3.05 3.05	+E/-W (ft) 48.43 48.43 48.43 48.43 48.43	48.52 48.52 48.52 48.52 48.52 48.52	48.34 47.89 47.44 46.99	0.19 0.64 1.09	260.091 76.281 44.695 31.607	Warning	
0.00 100.00 200.00 300.00 400.00 500.00 600.00 700.00 900.00 1,000.00 1,200.00 1,200.00 1,400.00 1,500.00	(R) 0.00 100.00 200.00 300.00 400.00 500.00 600.00 700.00 800.00 1,000.00 1,100.00 1,199.91 1,299.56 1,398.75	(n) 0.00 100.00 200.00 300.00 400.00 500.00 600.00 700.00 800.00 900.00 1,060.00 1,090.33 1,197.30	(ft) 0.00 100.00 200.00 300.00 400.00 500.00 700.00 800.00 900.00 1,000.00	0.00 0.09 0.32 0.54 0.77 0.99 1.22 1.44 1.67 1.89 2.12	0.00 0.09 0.32 0.54 0.77 0.99 1.22 1.44 1.67	66.42 86.42 86.42 86.42 86.42 86.42 86.42	3.05 3.05 3.05 3.05 3.05 3.05 3.05	48.43 48.43 48.43 48.43 48.43 48.43	48.52 48.52 48.52 48.52 48.52 48.52	48.34 47.89 47.44 46.99	0.19 0.64 1.09 1.54	260.091 76.281 44.695 31.607		
100.00 200.00 300.00 400.00 500.00 600.00 700.00 800.00 1,000.00 1,000.00 1,200.00 1,400.00 1,400.00 1,500.00	100.00 200.00 300.00 400.00 500.00 600.00 700.00 800.00 900.00 1,060.00 1,060.00 1,199.91 1,299.56 1,398.75	100.00 200.00 300.00 400.00 500.00 600.00 700.00 800.00 900.00 1,000.00 1,060.00 1,093.33 1,197.30	100.00 200.00 300.00 400.00 500.00 600.00 700.00 800.00 900.00 1,060.00	0.09 0.32 0.54 0.77 0.99 1.22 1.44 1.67 1.89 2.12	0.09 0.32 0.54 0.77 0.99 1.22 1.44 1.67	86.42 86.42 86.42 86.42 86.42 86.42	3.05 3.05 3.05 3.05 3.05	48.43 48.43 48.43 48.43 48.43	48.52 48.52 48.52 48.52	47.89 47.44 46.99	0.64 1.09 1.54	76.281 44.695 31.607		
200.00 300.00 400.00 500.00 600.00 700.00 800.00 1,000.00 1,000.00 1,100.00 1,200.00 1,400.00 1,500.00 1,500.00	200.00 300.00 400.00 500.00 600.00 700.00 900.00 1,000.00 1,060.00 1,199.91 1,299.56 1,398.75	200.00 300.00 400.00 500.00 600.00 700.00 800.00 900.00 1,000.00 1,060.00 1,099.33 1,197.30	200.00 300.00 400.00 500.00 600.00 700.00 800.00 900.00 1,060.00	0.32 0.54 0.77 0.99 1.22 1.44 1.67 1.89 2.12	0.32 0.54 0.77 0.99 1.22 1.44 1.67	86.42 86.42 86.42 86.42 86.42	3.05 3.05 3.05 3.05 3.05	48.43 48.43 48.43 48.43 48.43	48.52 48.52 48.52 48.52	47.89 47.44 46.99	0.64 1.09 1.54	76.281 44.695 31.607		
300.00 400.00 500.00 600.00 700.00 800.00 900.00 1,000.00 1,100.00 1,200.00 1,300.00 1,400.00 1,500.00	300.00 400.00 500.00 600.00 700.00 800.00 900.00 1,000.00 1,100.00 1,299.56 1,398.75	300.00 400.00 500.00 600.00 700.00 800.00 900.00 1,000.00 1,060.00 1,099.33 1,197.30	300.00 400.00 500.00 600.00 700.00 800.00 900.00 1,000.00	0.54 0.77 0.99 1.22 1.44 1.67 1.89 2.12	0.54 0.77 0.99 1.22 1.44 1.67 1.89	86.42 86.42 86.42 86.42	3.05 3.05 3.05 3.05	48.43 48.43 48.43 48.43	48.52 48.52 48.52	47.89 47.44 46.99	0.64 1.09 1.54	76.281 44.695 31.607		
400.00 500.00 600.00 700.00 800.00 900.00 1,000.00 1,100.00 1,200.00 1,300.00 1,400.00 1,500.00 1,500.00	400.00 500.00 700.00 800.00 900.00 1,000.00 1,100.00 1,199.91 1,299.56 1,398.76	400.00 500.00 600.00 700.00 800.00 900.00 1,000.00 1,060.00 1,099.33 1,197.30	400.00 500.00 600.00 700.00 800.00 900.00 1,000.00	0.77 0.99 1.22 1.44 1.67 1.89 2.12	0.77 0.99 1.22 1.44 1.67 1.89	86.42 86.42 86.42 86.42	3.05 3.05 3.05	48.43 48.43	48.52	46.99	1.54	44,695 31,607		
500.00 600.00 700.00 800.00 900.00 1,000.00 1,060.00 1,200.00 1,300.00 1,400.00 1,500.00 1,600.00	500.00 600.00 700.00 800.00 1,000.00 1,060.00 1,100.00 1,199.91 1,299.56 1,398.75	500.00 600.00 700.00 800.00 900.00 1,000.00 1,060.00 1,099.33 1,197.30	500.00 600.00 700.00 800.00 900.00 1,000.00	0.99 1.22 1.44 1.67 1.89 2.12	0.99 1.22 1.44 1.67 1.89	86.42 86.42 86.42	3.05 3.05	48.43 48.43	48.52	46.99	1.54	31.607		
600.00 700.00 800.00 900.00 1,000.00 1,060.00 1,100.00 1,200.00 1,300.00 1,400.00	600.00 700.00 800.00 900.00 1,000.00 1,100.00 1,109.91 1,299.56 1,398.75	600.00 700.00 800.00 900.00 1,000.00 1,060.00 1,099.33 1,197.30	600.00 700.00 800.00 900.00 1,000.00	1.22 1.44 1.67 1.89 2.12	1.22 1.44 1.67 1.89	86.42 86.42	3.05 3.05	48.43						
700.00 800.00 900.00 1,000.00 1,060.00 1,100.00 1,200.00 1,300.00 1,400.00 1,500.00 1,600.00	700.00 800.00 900.00 1,000.00 1,060.00 1,100.00 1,199.91 1,299.56 1,398.75	700.00 800.00 900.00 1,000.00 1,060.00 1,099.33 1,197.30	700.00 800.00 900.00 1,000.00	1.44 1.67 1.89 2.12	1.44 1.67 1.89	86.42		48.43			1.98	24.448		
800.00 900.00 1,000.00 1,060.00 1,100.00 1,200.00 1,300.00 1,400.00 1,500.00 1,600.00	800,00 900,00 1,000,00 1,060,00 1,100,00 1,199,91 1,299,56 1,398,75	800.00 900.00 1,000.00 1,060.00 1,099.33 1,197.30	700.00 800.00 900.00 1,000.00	1.44 1.67 1.89 2.12	1.44 1.67 1.89	86.42		75.10	48.52	46.09	2.43	19.933		
900.00 1,000.00 1,060.00 1,100.00 1,200.00 1,300.00 1,400.00 1,500.00 1,600.00	900.00 1,000.00 1,060.00 1,100.00 1,199.91 1,299.56 1,398.75	900.00 1,000.00 1,060.00 1,099.33 1,197.30	900.00 1,000.00 1,060.00	1.89 2.12	1.67 1.89			48.43	48.52	45.64	2.88	16.826		
1,000.00 1,060.00 1,100.00 1,200.00 1,300.00 1,400.00 1,500.00 1,600.00	1,000.00 1,060.00 1,100.00 1,199.91 1,299.56 1,398.75	1,000.00 1,060.00 1,099.33 1,197.30	1,000.00	1.89 2.12	1.89		3.05	48.43	48.52	45.19	3.33	14.557		
1,060.00 1,100.00 1,200.00 1,300.00 1,400.00 1,500.00	1,060.00 1,100.00 1,199.91 1,299.56 1,398.75	1,060.00 1,099.33 1,197.30	1,000.00	2.12		86.42	3.05	48.43	48.52	44.74	3.78	12.827		
1,100.00 1,200.00 1,300.00 1,400.00 1,500.00 1,600.00	1,100.00 1,199.91 1,299.56 1,398.75	1,099.33 1,197.30			2.12	86.42	3.05	48.43	48.52	44.29	4.23	11.464		
1,100.00 1,200.00 1,300.00 1,400.00 1,500.00 1,600.00	1,100.00 1,199.91 1,299.56 1,398.75	1,099.33 1,197.30		2.25	2.25	86.42	3.06	10.10	40 50	44.00	4.50	10.770.00		
1,200.00 1,300.00 1,400.00 1,500.00 1,600.00	1,199.91 1,299.56 1,398.75	1,197.30		2.23	2.25	175.72	3.05 3.10	48.43 48.69	48.52	44.02	4.50	10.778 CC, I	20	
1,300.00 1,400.00 1,500.00 1,600.00	1,299.56 1,398.75		1,197.25	2.54	2.54	175.72	3.10		49.14	44.47	4.67	10.522 SF		
1,400.00 1,500.00 1,600.00	1,398.75		1,197.25	2.75	2.75	175.32	5.72 5.01	51.65 57.78	56.10 70.74	51.03 65.26	5.07	11.065		
1,500.00 1,600.00		1,388.93	1,388.21	2.73	2.75	175.08	6.92	57.78 66.89	70.74 92.90	65.26 87.02	5.48 5.88	12.918 15.801		
1,600.00	1,497.30													
		1,481.05	1,479.54	3.27	3.19	174.88	9.39	78.66	122.38	116.10	6.28	19.500		
	1,595.02	1,569.81	1,567.13	3.59	3.44	174.71	12.34	92.71	158,92	152.25	6.67	23.844		
1,700.00	1,691.71	1,659.60	1,655.42	3.98	3.71	174.61	15.68	108.65	201.27	194.2 <u>2</u>	7.05	28.563		
1,800.00	1,787.21	1,748.24	1,742.58	4.45	3.99	174.59	18.99	124.43	247.54	240.13	7.41	33.405		
1,837.10	1,822.29	1,780.60	1,774.40	4.64	4.10	174.59	20.20	130.19	265.68	258.14	7.54	35.217		
1,900.00	1,881.61	1,835.22	1,828.11	4.99	4.28	174.68	22.24	139.91	296.89	289.07	7.81	37.994		
2,000.00	1,975.92	1,922.05	1,913.49	5.58	4.58	174.79	25.48	155.36	346.49	338.23	8.26	41.953		
2,100.00	2,070.23	2,008.87	1,998.87	6.19	4.88	174.87	28.73	170.82	396.09	387.38	8.71	45.481		
2,200.00	2,164.53	2,095.70	2,084.25	6.82	5.20	174.94	31.97	186.27	445.70	436.53	9.17	48.609		
2,300.00	2,258.84	2,182.53	2,169.63	7.46	5.51	174.99	35,21	201.73	495.30	485.66	9.64	51.397		
2,400.00	2,353.15	2,269.36	2,255.02	8.11	5.84	175.03	38.45	217.18	544.91	534.79	10.11	53.893		
2,500.00	2,447.45	2,356,19	2,340.40	8.77	6.16	175.06	41.70	232.64	594.51	583.92	10.59	56.138		
2,600.00	2,541.76	2,443.02	2,425.78	9.44	6.49	175.09	44.94	248.09	644.12	633.04	11.07	58.164		
2,700.00	2,636.06	2,529.85	2,511.16	10.11	6.82	175.11	48.18	263.55	693.72	682.16	11.56	59.999		
2,800.00	2,730.37	2,616.68	2,596.54	10,79	7.15	175.14	51.42	279.00	743.33	731.27	12.05	61.668		
2,900.00	2,824.68	2,703.51	2,681.92	11.47	7.49	175.16	54.67	204.45	702.02	700.20	10.55	62.490		
3,000.00	2,918.98	2,790.34	2,767.30	12.15	7.49	175.16	54.67 57.91	294.45 309.91	792.93 842.54	780.38 829.49	12,55 13.05	63.189 64.581		
3,100.00	3,013.29	2,877.16	2,852.68	12.84	8.16	175.17	61.15	325.36	892.14	878.59	13.55	65.858		
3,200.00	3,107.60	2,963.99	2,938.06	13.53	8.50	175.19	64.39	340.82	941.75	927.70	14.05	67.033		
3,300.00	3,201.90	3,050.82	3,023.44	14.22	8.85	175.21	67.64	356.27	991.35	976.80	14.05	68.118		
3 400 00	2 200 04	9 407 05												
3,400.00 3,500.00	3,296.21	3,137.65	3,108.83	14.91	9.19	175.22	70.88	371.73	1,040.96	1,025.90	15.06	69.122		
3,600.00	3,390.52 3,484.82	3,224.48	3,194.21	15.60	9.53	175.23	74.12	387.18	1,090.56	1,074.99	15.57	70.053		
3,700.00	•	3,311.31	3,279.59	16.29	9.88	175.24	77.36	402.63	1,140.17	1,124.09	16.08	70.918		
3,800.00	3,579.13 3,673.44	3,398.14 3,484.97	3,364.97 3,450.35	16.99 17.68	10.22 10.57	175.25 175.26	80.60 83.85	418.09 433,54	1,189.77 1,239.38	1,173.19 1,222.28	16.59 17.10	71.724 72.477		
					. 5.07		00.00	-50,04	1,2,00,00	* ,e.di.EE.O	17.10	12.411		
3,900.00	3,767.74	3,571.80	3,535.73	18.38	10.91	175.26	87.09	449.00	1,288.98	1,271.37	17.61	73.180		
4,000.00	3,862.05	3,658.63	3,621.11	19.08	11.26	175.27	90.33	464,45	1,338.59	1,320.46	18.13	73.839		
4,019.18	3,880.14	3,675.28	3,637.49	19.21	11.32	175.27	90.95	467.42	1,348.11	1,329.88	18.23	73.961		
4,100.00	3,956.72	3,746.01	3,707.04	19.70	11.61	175.34	93.59	480.00	1,387.20	1,368.47	18.73	74.054		
4,200.00	4,052.45	3,835.00	3,794.55	20.18	11.96	175. <del>4</del> 2	96.92	495.84	1,432.81	1,413.48	19.32	74.152		
4,300.00	4,149.12	3,939.28	3,897.13	20.62	12.34	175.47	100.76	514.16	1,475.10	1,455.19	19.90	74.107		
4,400.00	4,246.62	4,064.25	4,020.45	21.01	12.71	175.50	104.91	533.95	1,512.54	1,492.07	20.48	73.867		
4,500.00	4,344.84	4,192.92	4,147.85	21,34	13.06	175.53	108.61	551.58	1,544.68	1,523.65	21.02	73.474		
4,600.00	4,443.66	4,324.80	4,278.81	21.63	13,40	175.55	111.79	566.73	1,571.33	1,549.79	21.54	72.943		
4,700.00	4,542.95	4,459.32	4,412.74	21.87	13.71	175.56	114.39	579.14	1,592.37	1,570.35	22.03	72.287		
4,800.00	4,642.59	4,595.89	4,548.97	22.07	14.00	175.56	116,38	588.60		•				



Anticollision Report

Company:

**BILL BARRETT CORP** 

Project:

**CARBON COUNTY, UT (NAD 27)** 

Reference Site: Site Error:

**SECTION 28 T12S R15E** 

Reference Well:

0.00ft

Well Error:

0.00ft

Reference Wellbore

Reference Design:

PR PR UF 2-28D-12-15

PR PR UF 2-28D-12-15

Design #1

Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference:

**Survey Calculation Method:** Output errors are at

Database:

Offset TVD Reference:

Well PR PR UF 2-28D-12-15

KB @ 7522.00ft

KB @ 7522.00ft

True

Minimum Curvature

2.00 sigma Compass

Burvey Prog		WD					-15 - PR PR U						Offset Well Error:	0.60
Refer		Offs	et	Semi Major	Axis				Dista	ince				
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbor +N/-S (ft)	e Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
4,900.00	4,742.46	4,733.88	4,686.80	22.21	14.25	175.57	117.70	594.92	1.617.21	1.594.31	22.89	70.644		
4,990.55	4,833.00	4,859.50	4,812.38	22.31	14.45	86,24	118.32	597.84	1,620.77	1,597.67	23.10	70.177		
5,000.00	4,842.45	4,872.63	4,825.51	22.32	14.47	86.24	118.35	597.99	1,620,88	1,597.74	23.14	70.061		
5,100.00	4,942.45	4,989.57	4,942.45	22.42	14.64	86.24	118.41	598.31	1,621.10	1,597.58	23.52	68.910		
5,200.00	5,042.45	5,089.57	5,042.45	22.53	14.79	86.24	118.41	598.31	1,621.10	1,597.20	23.90	67.835		
5,300.00	5,142.45	5,189.57	5,142.45	22.63	14.95	86.24	118.41	598.31	1,621.10	1,596.83	24,27	66.783		
5,400.00	5,242.45	5,289.57	5,242.45	22.74	15.11	86.24	118.41	598.31	1,621.10	1,596.45	24.65	65.757		
5,500.00	5,342.45	5,389.57	5,342.45	22.85	15.27	86.24	118.41	598.31	1,621.10	1,596.07	25.03	64.756		
5,600.00	5,442.45	5,489.57	5,442.45	22.96	15.44	86.24	118.41	598.31	1,621.10	1,595.69	25.42	63.780		
5,700.00	5,542.45	5,589.57	5,542.45	23.07	15.60	86.24	118.41	598.31	1,621.10	1,595.30	25.80	62.827		
5,800.00	5,642.45	5,689.57	5,642.45	23.19	15.77	86.24	118.41	598.31	1,621.10	1,594.91	26.19	61.898		
5,900.00	5,742.45	5,789.57	5,742.45	23.30	15.94	86.24	118.41	598.31	1,621.10	1,594.52	26.58	60.992		
6,000.00	5,842.45	5,889.57	5,842.45	23.42	16.10	86.24	118.41	598.31	1,621.10	1,594.13	26.97	60.108		
6,100.00	5,942.45	5,989.57	5,942.45	23.54	16.27	86.24	118.41	598.31	1,621.10	1,593.74	27.36	59.245		
6,200.00	6,042.45	6,089.57	6,042.45	23.66	16.45	86.24	118.41	598.31	1,621.10	1,593.35	27.76	58.403		
6,300.00	6,142.45	6,189.57	6,142.45	23.78	16.62	86.24	118.41	598.31	1,621.10	1,592.95	28.15	57.581		
6,400.00	6,242.45	6,289.57	6,242.45	23.90	16.79	86.24	118.41	598.31	1,621.10	1,592.55	28,55	56.779		
6,500.00	6,342.45	6,389.57	6,342.45	24.03	16.97	86.24	118.41	598.31	1,621.10	1,592.15	28.95	55.997		
6,600.00	6,442.45	6,489.57	6,442.45	24.16	17.15	86.24	118.41	598.31	1,621.10	1,591.75	29.35	55.233		
6,700.00	6,542.45	6,589.57	6,542.45	24.28	17.32	86,24	118.41	598.31	1,621.10	1,591.35	29.75	54.486		
6,800.00	6,642.45	6,689.57	6,642.45	24.41	17.50	86.24	118.41	598.31	1,621.10	1,590.95	30.16	53.758		
6,900.00	6,742.45	6,789.57	6,742.45	24.54	17.68	86.24	118.41	598.31	1,621.10	1,590,54	30.56	53,046		
7,000.00	6,842.45	6,889.57	6,842.45	24.68	17.86	86.24	118.41	598.31	1,621.10	1,590.14	30.97	52.351		
7,100.00	6,942.45	6,989.57	6,942.45	24.81	18.04	86.24	118.41	598.31	1,621,10	1,589.73	31.37	51.673		
7,200.00	7,042.45	7,089.57	7,042.45	24.94	18.23	86.24	118.41	598.31	1,621.10	1,589.32	31.78	51.009		
7,300.00	7,142.45	7,189.57	7,142.45	25.08	18.41	86.24	118.41	598.31	1,621.10	1,588.91	32.19	50.361		
7,400.00	7,242.45	7,289.57	7,242.45	25.22	18.59	86.24	118.41	598.31	1,621.10	1,588.50	32.60	49.727		
7,436.38	7,278.83	7,325.95	7,278.83	25.27	18.66	86.24	118.41	598.31	1,621.10	1,588.35	32.75	49.500		
7,470.55	7,313.00	7,338.12	7,291.00	25.31	18.68	86.24	118.41	598.31	1,621.25	1,588.41	32.84	49.364		

# **Bili Barrett Corporation**

#### **BILL BARRETT CORPORATION**

Anticollision Report

Company:

BILL BARRETT CORP

Project:

CARBON COUNTY, UT (NAD 27)

Reference Site:

**SECTION 28 T12S R15E** 

Site Error:

Reference Well: Well Error:

PR PR UF 2-28D-12-15

Reference Wellbore

0.00ft PR PR UF 2-28D-12-15

Reference Design:

Design #1

Local Co-ordinate Reference:

**TVD Reference:** 

MD Reference:

KB @ 7522.00ft

Well PR PR UF 2-28D-12-15

KB @ 7522.00ft

True

North Reference:

Survey Calculation Method: Output errors are at

Minimum Curvature 2.00 sigma

Database:

Offset TVD Reference:

Compass

urvey Prog	gram: 0-M	WD											Original 201-11-11	- خذی
	rence	Offse	t .	Semi Major	Axis				Dista	nce			Offset Well Error:	0.00 ft
easured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbor		Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)	ractor		
0.00	0.00	0.00	0.00	0.00	0.00	86.40	2.04	32.02	32.09					
100.00	100.00	100.00	100.00	0.09	0.09	86.40	2.04	32.02	32.09	31.90	0.19	172.000		
200.00	200.00	200.00	200.00	0.32	0.32	86.40	2.04	32.02	32.09	31.45	0.64	50.445		
300.00	300.00	300.00	300.00	0.54	0.54	86.40	2.04	32.02	32.09	31.00	1.09	29.557		
400.00	400.00	400.00	400.00	0.77	0.77	86.40	2.04	32.02	32,09	30.55	1.54	20.902		
500.00	500.00	500.00	500.00	0.99	0.99	86.40	2.04	32.02	32.09	30.10	1.98	16.168		
600.00	600.00	600.00	600.00	1.22	1.22	86.40	2.04	32.02	32.09	29.65	2.43	13.182		
700.00	700.00	700.00	700.00	1.44	1.44	86.40	2.04	32.02	32.09	29.20	2.88	11.127		
800.00	800.00	800.00	800.00	1.67	1.67	86.40	2.04	32.02	32.09	28.75	3.33	9.626		
900.00	900.00	900.00	900.00	1.89	1.89	86.40	2.04	32.02	32.09	28.30	3.78	8.482		
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	86.40	2.04	32.02	32.09	27.86	4.23	7.582		
1,060.00	1,060.00	1,060.00	1,060.00	2.25	2.25	86.40	2.04	32.02	32.09	27.59	4.50	7.127 CC,	ES	
1,100.00	1,100.00	1,099.47	1,099.47	2.34	2.33	175.98	1.93	32.35	32.76	28.09	4.67	7.018 SF		
1,200.00	1,199.91	1,197.71	1,197.62	2.54	2.52	178.33	0.76	35,96	40.30	35.25	5.06	7.970		
1,300.00	1,299.56	1,294.45	1,294.04	2.75	2.72	-178.80	-1.65	43.42	56.28	50.82	5.46	10.316		
1,400.00	1,398.75	1,388.70	1,387.57	2.99	2.94	-176.60	-5.21	54.41	80.56	74.70	5.86	13.757		
1,500.00	1,497.30	1,479.58	1,477.24	3.27	3,18	-175.11	-9.76	68.46	112.84	106.59	6.25	18.050		
1,600.00	1,595.02	1,566.33	1,562.22	3.59	3.45	-174,10	-15.12	85.02	152.75	146,11	6.64	23.002		
1,700.00	1,691.71	1,648.35	1,641.91	3.98	3.74	-173.38	-21.09	103.48	199.84	192.82	7.02	28.466		
1,800.00	1,787.21	1,725.18	1,715.88	4.45	4.06	-172.83	-27.48	123.22	253.61	246.22	7.39	34.324		
1,837.10	1,822.29	1,752.30	1,741.82	4.64	4.18	-172.65	-29.92	130.75	275.15	267.63	7.52	36.576		
1,900.00	1,881.61	1,800.00	1,787.21	4.99	4.41	-172.49	-34.43	144.70	312.90	305,10	7.80	40.133		
2,000.00	1,975.92	1,865.43	1,848.95	5.58	4.77	-172.27	-41.10	165.29	374.79	366.57	8.22	45.592		
2,100.00	2,070.23	1,930.73	1,909.93	6.19	5.16	-172.04	-48.29	187.51	438.93	430.27	8.65	50.727		
2,200.00	2,164.53	2,000.00	1,973.87	6.82	5.61	-171.81	-56,50	212.87	505.21	496.10	9.11	55.457		
2,300.00	2,258.84	2,052.40	2,021.68	7.46	6.01	-171.63	-63.10	233.27	573.31	563.78	9.54	60.114		
2,400.00	2,353.15	2,100.00	2,064.67	8.11	6.37	-171.47	-69.39	252.70	643.37	633,42	9,95	64.647		
2,500.00	2,447.45	2,162.97	2,120.88	8.77	6.91	-171.27	-78.13	279.70	714.94	704.53	10.42	68.631		
2,600.00	2,541.76	2,214.40	2,166.20	9.44	7.37	-171.10	-85.62	302.83	788.17	777.32	10.85	72.611		
2,700.00	2,636,06	2,263.44	2,208.89	10.11	7.84	-170,95	-93.05	325.79	862,86	851.56	11.29	76.399		
2,800.00	2,730.37	2,317.84	2,255.71	10.79	8.38	-170.79	-101.58	352.14	938.79	927.04	11.75	79.868		
2,900.00	2,824.68	2,382.60	2,311.35	11.47	9.05	-170.62	-111.78	383,67	1,014.97	1,002.74	12.23	83.018		
3,000.00	2,918.98	2,447.36	2,366,99	12.15	9.73	-170.47	-121.99	415.20	1,091.14	1,078.44	12.70	85.893		
3,100.00	3,013.29	2,512.13	2,422.63	12.84	10.42	-170.34	-132.20	446.74	1,167.32	1,154.14	13.18	88.542		
3,200.00	3,107.60	2,576.89	2,478.27	13.53	11.11	-170.23	-142.41	478.27	1,243.50	1,229.83	13.67	90.961		
3,300.00	3,201,90	2,641.65	2,533.91	14.22	11.81	-170.13	-152.61	509.81	1,319.68	1,305.52	14.16	93.189		
3,400.00	3,296.21	2,706.42	2,589.55	14.91	12.51	-170.04	-162,82	541.34	1,395.86	1,381.21	14.65	95.255		
3,500.00	3,390.52	2,771.18	2,645.19	15.60	13.22	-169.96	-173.03	572.87	1,472.05	1,456.90	15.15	97.151		
3,600.00	3,484.82	2,835.94	2,700.82	16.29	13.93	-169.89	-183.23	604.41	1,548.23	1,532.58	15.65	98.912		
3,700.00	3,579.13	2,900.71	2,756.46	16.99	14.65	-169.83	-193.44	635.94	1,624.42	1,608.27	16.15	100.553		
3,800.00	3,673.44	2,965.47	2,812.10	17.68	15.37	-169.77	-203.65	667.48	1,700.61	1,683.95	16.66	102.067		
3,900.00	3,767.74	3,030.23	2,867.74	18.38	16.08	-169.71	-213.85	699.01	1,776.80	1,759.63	17.17	103.484		
4,000.00	3,862.05	3,095.00	2,923.38	19.08	16.81	-169.66	-224.06	730.54	1,852.98	1,835.30	17.68	104.809		
4,019.18	3,880.14	3,107.42	2,934.05	19.21	16.94	-169.65	-226.02	736.59	1,867.60	1,849.82	17.78	105.052		
4,100.00	3,956,72	3,160.60	2,979.74	19.70	17.54	-169.94	-234,40	762.49	1,928.44	1,910.13	18.31	105.347		
4,200.00	4,052.45	3,228.70	3,038.25	20.18	18,30	-170.23	-245.14	795.65	2,001.64	1,982.71	18,93	105.731		
4,300.00	4,149.12	3,299.26	3,098.87	20.62	19.09	-170.47	-256.26	830.01	2,072.45	2,052.90	19.55	106.000		
4,400.00	4,246.62	3,372.19	3,161.52	21.01	19.91	-170.67	-267.75	865.52	2,140.80	2,120.63	20,16	106,168		
4,500.00	4,344.84	3,447.41	3,226.14	21.34	20.75	-170.83	-279.60	902.14	2,206.60	2,185.83	20.77	106.258		
4,600.00	4,443.66	3,524.82	3,292.64	21.63	21.62	-170.95	-291.80	939.83	2,269.77	2,248.41	21.36	106.282		
4,700.00	4,542.95	3,604.32	3,360.95	21.87	22.52	-171.04	-304.33	978.54	2,330.24	2,308.31	21.93	106.251		
4,800.00	4,642.59	3,685.83	3,430.97	22.07										



Anticollision Report

Company:

BILL BARRETT CORP

Project:

Reference Site:

**CARBON COUNTY, UT (NAD 27) SECTION 28 T12S R15E** 

Site Error:

0.00ft

Reference Well:

Well Error:

PR PR UF 2-28D-12-15

0.00ft

Reference Wellbore Reference Design:

PR PR UF 2-28D-12-15

Design #1

Local Co-ordinate Reference:

**TVD Reference:** MD Reference: North Reference: Well PR PR UF 2-28D-12-15

KB @ 7522.00ft KB @ 7522.00ft

True

**Survey Calculation Method:** 

Output errors are at

Minimum Curvature 2.00 sigma

Database:

Offset TVD Reference:

Compass

Offset De Survey Prog			20 112	0 1010E - P	IN FIN OF	UN-21 U-12	-15 - PR PR U	- 3M-21 D-	iz-10 - Det	aiAii # i			Offset Site Error: Offset Well Error:	0.00
Refer	ence	Offse	et	Semi Major	Axis				Dista	ince				
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset	Highside Toolface	Offset Wellbor +N/-S	+E/-W	Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning	
6.7	(11)	(1.7	(1.1)	(11)	(ft)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)			
4,900.00	4,742.46	3,769.23	3,502.63	22,21	24.38	-171.15	-330,33	1,058.84	2,442.80	2,419.77	23.03	106.057		
4,990.55	4,833.00	3,846.31	3,568.85	22.31	25.25	99.52	-342.47	1,096.37	2,489.97	2,466.46	23.51	105.913		
5,000.00	4,842.45	3,854.43	3,575.82	22.32	25.34	99.53	-343.75	1,100.32	2,494.77	2,471.22	23.56	105,912		
5,100.00	4,942.45	3,940.34	3,649.63	22.42	26.32	99.70	-357.29	1,142.16	2,545.55	2,521.51	24.04	105.874		
5,200.00	5,042.45	4,026,25	3,723.44	22.53	27.29	99.86	-370.83	1,183.99	2,596.35	2,571.81	24.53	105.832		
5,300.00	5,142.45	4,112.17	3,797.24	22.63	28,26	100.02	-384.37	1,225.82	2,647.16	2,622.13	25.02	105.786		
5,400.00	5,242.45	4,198.08	3,871.05	22.74	29.24	100.17	-397.91	1,267.65	2,697.98	2,672.46	25.52	105.738		
5,500.00	5,342.45	4,283.99	3,944.86	22.85	30.21	100.31	-411.45	1,309.48	2,748.82	2,722.81	26.01	105.687		
5,600.00	5,442.45	4,369.90	4,018.67	22.96	31.19	100.45	-424.99	1,351.31	2,799.67	2,773.16	26.50	105.633		
5,700.00	5,542.45	4,455.81	4,092.47	23.07	32.16	100.58	-438.53	1,393.14	2,850.53	2,823.53	27.00	105.578		
5,800.00	5,642.45	4,541.72	4,166.28	23.19	33.14	100.71	-452.07	1,434.98	2,901.40	2,873.90	27.50	105.521		
5,900.00	5,742.45	4,627.63	4,240.09	23.30	34.11	100.84	-465.61	1,476.81	2,952.28	2,924.29	27.99	105.462		
6,000.00	5,842.45	4,713.54	4,313.90	23.42	35.09	100.96	-479.15	1,518.64	3,003.18	2,974.68	28.49	105.402		
6,100.00	5,942.45	4,799.46	4,387.70	23.54	36.07	101.07	-492.69	1,560.47	3,054.08	3,025.09	28.99	105,340		
6,200.00	6,042.45	4,885.37	4,461.51	23.66	37.04	101.19	-506.23	1,602.30	3,104.99	3,075.50	29.49	105.277		
6,300.00	6,142.45	4,971.28	4,535.32	23.78	38.02	101.29	-519.77	1,644.13	3,155.91	3,125.92	30.00	105.213		
6,400.00	6,242.45	6,772.01	6,242.45	23.90	47.01	102.24	-658.61	2,073.04	3,164.27	3,132.45	31.82	99.453		
6,500.00	6,342.45	6,872.01	6,342.45	24.03	47.08	102.24	-658.61	2,073.04	3,164.27	3,132.12	32.16	98.406		
6,600.00	6,442.45	6,972.01	6,442.45	24.16	47.14	102.24	-658.61	2,073.04	3,164.27	3,131.77	32.50	97.372		
6,700.00	6,542.45	7,072.01	6,542.45	24.28	47.20	102.24	-658.61	2,073.04	3,164.27	3,131.43	32.84	96.352		
6,800.00	6,642.45	7,172.01	6,642.45	24.41	47.27	102.24	-658.61	2,073.04	3,164.27	3,131.08	33.19	95.346		
6,900.00	6,742.45	7,272.01	6,742.45	24.54	47.34	102.24	-658.61	2,073.04	3,164.27	3,130.73	33.54	94.354		
7,000.00	6,842.45	7,372.01	6,842.45	24.68	47.40	102.24	-658.61	2,073.04	3,164.27	3,130.38	33.89	93.377		
7,100.00	6,942.45	7,472.01	6,942.45	24.81	47.47	102.24	-658.61	2,073.04	3,164.27	3,130.03	34.24	92.413		
7,200.00	7,042.45	7,572.01	7,042.45	24.94	47.54	102.24	-658,61	2,073.04	3,164.27	3,129.67	34.60	91.463		
7,300.00	7,142.45	7,672.01	7,142.45	25.08	47.61	102.24	-658.61	2,073.04	3,164.27	3,129.32	34.95	90.527		
7,400.00	7,242.45	7,772.01	7,242.45	25.22	47.68	102.24	-658.61	2,073.04	3,164.27	3,128.96	35.31	89.604		
7,470.55	7,313.00	7,842.56	7,313.00	25.31	47.73	102.24	-658.61	2,073.04	3,164.27	3,128.70	35.57	88.962		



Anticollision Report

Company: Project:

BILL BARRETT CORP

Reference Site:

CARBON COUNTY, UT (NAD 27) **SECTION 28 T12S R15E** 

Site Error:

0.00ft

Reference Well:

Well Error:

0.00ft

Reference Wellbore

Reference Design:

PR PR UF 2-28D-12-15

PR PR UF 2-28D-12-15

Design #1

Local Co-ordinate Reference:

**TVD Reference:** 

MD Reference:

North Reference:

**Survey Calculation Method:** 

Output errors are at

Database: Offset TVD Reference: Well PR PR UF 2-28D-12-15

KB @ 7522.00ft

KB @ 7522.00ft

True

Minimum Curvature

2.00 sigma

Compass Offset Datum

Offset De Survey Prog		SECTIC I-MWD	N 28 T12	S R15E - P	R PR UF	9-28D-12-1	5 - PR PR UF	9-28D-12-	15 - PR PR	UF 9-281	D-12-15		Offset Site Error: Offset Well Error:	0.00 ft 0.00 ft
Refer	ence	Offse	et	Semi Major	Axis				Dista	ince				
leasured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbon	Centre +E/-W	Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)			
0.00	0.00	0.00	0.00	0.00	0.00	126.95	-160.19	212.96	266.68					
100.00	100.00	90.02	90.02	0.09	0.10	126.96	-160.20	212.95	266.49	266.30	0.19	1,377.166		
200.00	200.00	190.04	190.04	0.32	0.21	126.97	-160.22	212.92	266.48	265.95	0.53	503.139		
300.00	300.00	290.05	290.05	0.54	0.32	126.98	-160.26	212.87	266.47	265.60	0.87	307.778		
400.00	400.00	390.07	390.07	0.77	0.44	127.00	-160.32	212.79	266.44	265.24	1.20	221.683		
500.00	500.00	490.09	490.09	0.99	0.55	127.02	-160.40	212.70	266.41	264.87	1.54	173.215		
600.00	600,00	590.11	590,11	1.22	0.66	127.06	-160.49	212.58	266,37	264.50	1.87	142.128		
700.00	700.00	690.13	690.13	1.44	0.77	127.09	-160.60	212.44	266.33	264.12	2.21	120.494		
800.00	800.00	790.15	790,15	1.67	0.88	127.14	-160.73	212.28	266.28	263,73	2.55	104.568		
900.00	900.00	890,17	890.17	1.89	0.99	127.19	-160.88	212.09	266.22	263.34	2,88	92.354		
1,000.00	1,000.00	990,18	990.18	2.12	1.10	127.24	-161.04	211.89	266.15	262.93	3.22	82.689		
1.060.00	1 000 00	1.050.00	1.050.40	0.00		407.00		044 77-	600.41	000.00	0.40	77 004		
1,060.00 1,062.08	1,060.00 1,062.08	1,050.20 1,052.28	1,050.19	2.25	1.17	127.28	-161.15	211.75	266.11	262.69	3.42	77.801	Ee	
1,100.00	1,100.00	1,052.28	1,052.28	2.26	1.17	-143.41	-161.15	211.75	266.11	262.68	3.43 3.55	77.610 CC. 75.012	Co	
1,200.00	1,100.00	1,090.20	1,090.20 1,190.14	2.34 2.54	1.22 1.33	-143.42 -143.81	-161.22	211.66	266.36 269.44	262.81 265.58	3.86	69.773		
1,300.00	1,299.56	1,289.83	1,289.83	2.75	1.44	-143.61 -144.66	-161.42 -161.63	211.41 211.14	276.08	271.90	4.18	66.108		
.,=50.00	.,200.00	1,200.00	1,203.00	2.10	1.44	- 1 <del>-14</del> .00	-101.03	411.14	210.00	211.50	4.10	50.100		
1,400.00	1,398.75	1,389.09	1,389.08	2.99	1.55	-145.90	-161.86	210.85	286.37	281.88	4.49	63.742		
1,500.00	1,497.30	1,487.71	1,487.71	3.27	1.66	-147.44	-162.11	210.54	300.46	295.65	4.81	62.476		
1,600.00	1,595.02	1,584.22	1,584.22	3.59	1.79	-149.13	-162.46	210.21	318.54	313.32	5.21	61.110		
1,700.00	1,691.71	1,677.05	1,677.01	3.98	2.00	-150.52	-165.05	209.77	341.69	336.01	5.68	60.179		
1,800.00	1,787.21	1,771.52	1,771.25	4.45	2.22	-151.41	-171.12	207.88	369.16	363.02	6.14	60.082		
1,837.10	1,822.29	1,803.77	1,803.36	4.64	2.30	-151.60	-174.03	207.06	380.60	374.26	6.34	60.057		
1,900.00	1,881.61	1,857,28	1,856.53	4.99	2.43	-152.02	-174.03 -179.86	207.06	401.08	394.39	6.68	60.005 SF		
2,000.00	1,975.92	1,941.00	1,939.43	5.58	2.45	-152.35	-179.88	205.11	436.06	428.80	7.26	60.101		
2,100.00	2,070.23	2,019.59	2,016.84	6.19	2.87	-152.38	-205.05	205.52	473.61	465.77	7.84	60.433		
2,200.00	2,164.53	2,102.85	2,098.40	6.82	3.15	-152.17	-221.78	206.52	513.00	504.53	8.47	60.574		
		_,	_,											
2,300.00	2,258.84	2,183.83	2,177.25	7.46	3,45	-151.80	-240.13	207.99	554.01	544.87	9.13	60.668		
2,400.00	2,353.15	2,260.07	2,250.86	8.11	3.77	-151.28	-259.87	209.85	596.95	587.12	9.82	60.781		
2,500.00	2,447.45	2,331,54	2,319.12	8.77	4.11	-150.65	-280.90	212.41	642.39	631.86	10.53	60.985		
2,600.00	2,541.76	2,401.49	2,385.08	9.44	4.49	-149.92	-303.95	215.63	690.31	679.02	11.29	61.168		
2,700.00	2,636.06	2,465.95	2,445.01	10.11	4.88	-149.16	-327.40	219.26	740.75	728.69	12.05	61.453		
2,800.00	2,730.37	2,527.84	2,501.66	10.79	5.29	-148,38	-351.93	223.64	793.90	781.07	12.83	61.862		
2,900.00	2,824.68	2,589.81	2,557.61	11.47	5.74	-147.58	-378.03	228.85	849.43	835.79	13.64	62.260		
3,000.00	2,918.98	2,650.61	2,611.89	12.15	6.20	-146.83	-404.77	234.86	907.09	892.64	14.45	62.764		
3,100.00	3,013.29	2,712,11	2,666.37	12.84	6.67	-146.15	-432.37	242.11	966.66	951.40	15.26	63.342		
3,200.00	3,107.60	2,784.98	2,730.89	13.53	7.20	-145.48	-464.79	251.85	1,027.28	1,011.18	16.10	63.816		
3,300.00	3,201.90	2,863.50	2,800.56	14.22	7.77	-144.88	-499.26	263.02	1,088.26	1,071.31	16.95	64.213		
3,400.00	3,296.21	2,938.50	2,867.02	14.91	8.36	-144.36	-532.37	273.60	1,149.36	1,131.56	17.81	64.551		
3,500.00	3,390.52	3,009.38	2,929.67	15.60	8.95	-143.90	-563.89	283.84	1,210.93	1,192.27	18.66	64.898 65.400		
3,600.00	3,484,82	3,080.00	2,991.68	16.29	9.57	-143.45	-596.08	294.08	1,273.15	1,253.62	19.53	65.192 65.454		
3,700.00	3,579.13	3,149.29	3,052.14	16.99	10.20	-143.00	-628.45	304.01	1,335.90	1,315.49	20.41	65.454		
3,800.00	3,673.44	3,211.82	3,106.42	17.68	10.77	-142.60	-658.17	312.95	1,399.17	1,377.91	21.26	65.826		
3,900.00	3,767.74	3,270.00	3,156.61	18.38	11.31	-142.26	-686.18	321.95	1,463.53	1,441.45	22.08	66.289		
4,000.00	3,862.05	3,321.06	3,200.47	19.08	11.78	-141.99	-710,84	330.64	1,529.02	1,506.17	22.85	66,923		
4,019.18	3,880.14	3,331.17	3,209.14	19.21	11.88	-141.95	-715.70	332.47	1,541.71	1,518.71	23.00	67.041		
4,100.00	3,956.72	3,382,52	3,253.15	19.70	12.34	-142.57	-740.26	342.32	1,594.91	1,571.26	23.64	67.457	*	
4,200.00	4,052.45	3,507.71	3,361.94	20.18	13.36	-143.04	-797.03	367.06	1,658.03	1,633.42	24.61	67.367		
4,300.00	4,149.12	3,695.14	3,528.67	20.62	14.80	-143.05	-876.98	397.36	1,714.83	1,688.97	25.86	66.308		
4,400.00	4,246.62	3,792.60	3,615.83	21.01	15.59	-143.18	-919.26	408.12	1,766.27	1,739.51	26.76	66.009		
4,500.00	4,344.84	3,858.47	3,674.25	21.34	16.15	-143.39	-948.97	414.73	1,815.85	1,788.36	27.48	66.067 66.322		
4,600.00	4,443.66	3,910.49	3,719.90	21.63	16.62	-143.62	-973.27	420.24	1,864.51	1,836.40	28.11	66.322		
4,700.00	4,542.95	3,963.85	3,766.29	21.87	17.12	-143.80	-998.93	426.40	1,912.45	1,883.74	28.71	66.614		



#### Anticollision Report

Company:

BILL BARRETT CORP

Project:

CARBON COUNTY, UT (NAD 27)

Reference Site:

**SECTION 28 T12S R15E** 

Site Error: Reference Well:

0.00ft

Well Error:

Reference Wellbore

PR PR UF 2-28D-12-15

Reference Design:

0.00ft

PR PR UF 2-28D-12-15 Design #1

Local Co-ordinate Reference:

**TVD Reference:** 

MD Reference:

North Reference:

**Survey Calculation Method:** 

Output errors are at

Database:

Offset TVD Reference:

Well PR PR UF 2-28D-12-15

KB @ 7522.00ft

KB @ 7522.00ft

True

Minimum Curvature

2.00 sigma Compass

Offset De Survey Prog	•	1-MWD	JN 20 1 12	3 K 13E - F	K PK UF	9-280-12-1	5 - PR PR UF	9-280-12-	15 - PR PR	OF 9-281	J-12-15		Offset Site Error:	0.00 fi
Refer	ence	Offs	et	Semi Major	Axis				Dista	nce			Offset Well Error:	0.001
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbor +N/-S (ft)	e Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
4,800.00	4,642,59	4.030.00	3.823.47	22.07	17.74	-143.84	-1.030.98	435.22	1,959.58	1,930,23	29.35	66.770		
4,900.00	4,742.46	4,088.95	3,874.24	22.21	18.31	-143.91	-1,059.69	443,79	2.005.46	1,975,57	29.89	67.088		
4,990.55	4,833.00	4,155.86	3,931.71	22.31	18.96	126.87	-1,092,47	453.74	2,045.61	2.015.16	30,44	67.196		
5,000.00	4,842.45	4,162.81	3,937.68	22.32	19.03	126.93	-1,095.89	454.79	2,049.73	2,019,23	30.50	67.205		
5,100.00	4,942.45	4,239.02	4,002.96	22.42	19.78	127,63	-1,133,42	466.50	2,093.80	2,062,68	31.12	67.288		
5,200.00	5,042.45	4,324.89	4,076.37	22.53	20.62	128.40	-1,176.00	479.59	2,138.35	2,106.58	31.77	67.298		
5,300.00	5,142.45	4,410.00	4,149.03	22.63	21.43	129,15	-1,218.47	492.25	2,183.21	2,150.80	32.41	67.359		
5,400.00	5,242.45	4,489.84	4,217.09	22.74	22.22	129.83	-1,258.51	504.05	2,228.50	2,195.47	33.02	67.483		
5,500.00	5,342.45	4,583.49	4,296.89	22.85	23.13	130.61	-1,305,56	517.81	2,274.10	2,240,41	33.69	67.499		
5,600.00	5,442.45	4,664.04	4,365.55	22.96	23.90	131.25	-1,346,05	529.40	2,319.82	2,285,54	34.27	67.684		
5,700.00	5,542.45	4,757.59	4,445.20	23.07	24.80	131.98	-1,393.25	542.80	2,365.91	2,330.99	34.91	67.763		
5,800.00	5,642.45	4,886.09	4,555.38	23.19	25.95	132.92	-1,456.92	560.64	2,411.34	2,375.66	35.68	67.578		
5,900.00	5,742.45	4,981.89	4,638.22	23.30	26.78	133.57	-1,503.20	573.80	2,455.95	2,419.69	36.26	67,724		
6,000.00	5,842.45	5,075.99	4,719.79	23.42	27.61	134.18	-1,548.30	586,71	2,500.48	2,463.64	36.84	67.875		
6,100.00	5,942.45	5,186.20	4,815.58	23.54	28.58	134.86	-1,600.80	601.37	2,544.73	2,507.25	37.48	67.890		
6,200.00	6,042.45	5,352.29	4,961.54	23.66	29.98	135.82	-1,677.21	622.37	2,587.66	2,549.32	38.34	67.489		
6,300.00	6,142.45	5,463.49	5,060.26	23.78	30.90	136.43	-1,726.80	634,97	2,628.74	2,589.79	38.95	67.489		
6,400.00	6,242.45	5,639.31	5,218.05	23.90	32.29	137.30	-1,801.87	654.41	2,668.54	2,628,74	39.79	67.058		
6,500.00	6,342.45	5,767.40	5,334.46	24.03	33.25	137.89	-1,853.81	667.03	2,705.85	2,665,42	40.43	66.927		
6,600.00	6,442.45	5,895.98	5,452.06	24.16	34.19	138,44	-1,904.19	679.89	2,742.43	2,701.38	41.05	66.813		
6,700.00	6,542.45	6,093.98	5,635.40	24.28	35.57	139.20	-1,976.77	697.68	2,776.44	2,734.55	41.89	66.279		
6,800.00	6,642.45	6,216.21	5,749.60	24.41	36.38	139.65	-2,019.38	706,73	2,808.18	2,765,72	42.46	66.138		
6,900.00	6,742.45	6,349.67	5,874.67	24.54	37.24	140.13	-2,065.07	715.77	2,839.24	2,796.18	43.06	65.939		
7,000.00	6,842.45	6,492.99	6,009.95	24.68	38.13	140.61	-2,111.56	724.57	2,868.42	2,824.74	43.68	65.675		
7,100.00	6,942.45	6,668.87	6,177.38	24.81	39.13	141.15	-2,164.54	734.08	2,895.27	2,850.90	44.37	65.257		
7,200.00	7,042.45	6,798.08	6,301.19	24.94	39.82	141.50	-2,200.82	741.20	2,920.87	2,875.98	44.89	65.065		
7,300.00	7,142.45	7,024.50	6,519.93	25.08	40.94	142.03	-2,258.08	752.57	2,944.29	2,898.63	45.66	64.485		
7,400.00	7,242.45	7,232.10	6,722.94	25.22	41.73	142.39	-2,300.39	762.00	2,963.21	2,916.93	46.28	64.029		
7,470.55	7,313.00	7,372.50	6,861.13	25.31	42.16	142.60	-2,324.58	767.34	2,974.52	2,927.86	46.66	63.745		



Anticollision Report

Company: Project: Reference Site: BILL BARRETT CORP

**CARBON COUNTY, UT (NAD 27) SECTION 28 T12S R15E** 

Site Error:

Reference Well: Well Error:

PR PR UF 2-28D-12-15

0.00ft

Reference Wellbore

Reference Design:

PR PR UF 2-28D-12-15

Design #1

**Local Co-ordinate Reference:** 

**TVD Reference:** MD Reference:

North Reference: **Survey Calculation Method:** 

Output errors are at

Database:

Offset TVD Reference:

Well PR PR UF 2-28D-12-15

KB @ 7522.00ft KB @ 7522.00ft

True

Minimum Curvature

2.00 sigma Compass

Offset Datum

Reference Depths are relative to KB @ 7522.00ft

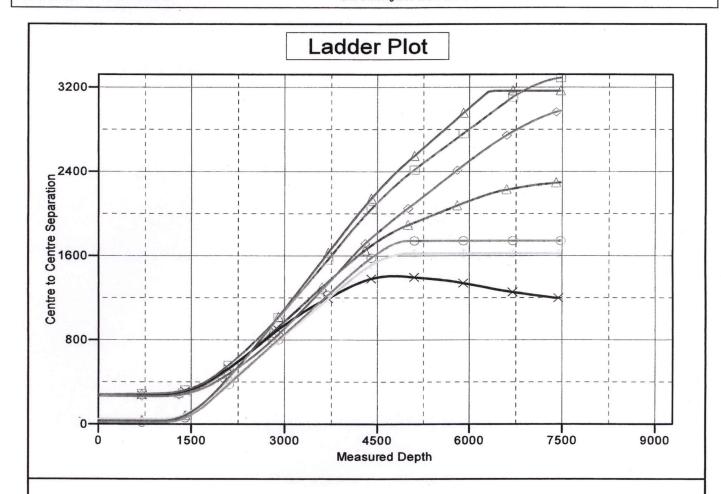
Offset Depths are relative to Offset Datum

Central Meridian is 111° 30' 0.0000 W°

Coordinates are relative to: PR PR UF 2-28D-12-15

Coordinate System is US State Plane 1927 (Exact solution), Utah Central 4302

Grid Convergence at Surface is: 0.81°



#### LEGEND

12-15, PR PR 8-28D-12-15 V0 12-15, PR PR 1-28D-12-15 VO PR PR UF 5A-27D-12-15, PR PR UF 5A-27D-12-15, Design #1 V0

PR PR 5-27D-12-15, PR PR 5-27D-12-15, PR PR 5-27D-12-15 V0

A-28D-12-15, Design #1 V0

- PR PR UF 16X-21D-12-15, PR PR UF 16X-21D-12-15, Design #1 V0

PR PR UF 9-28D-12-15, PR I



Anticollision Report

Company: BILL BARRETT CORP

Project: CARBON COUNTY, UT (NAD 27)

Reference Site: SECTION 28 T12S R15E

Site Error: 0.00ft

Reference Well: PR PR UF 2-28D-12-15

Well Error: 0.00

Reference Wellbore PR PR UF 2-28D-12-15

Reference Design:

Design #1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:

North Reference:

Survey Calculation Method:

Output errors are at Database:

Offset TVD Reference:

Well PR PR UF 2-28D-12-15

KB @ 7522.00ft

KB @ 7522.00ft

True

Minimum Curvature

2.00 sigma

Compass Offset Datum

Reference Depths are relative to KB @ 7522.00ft

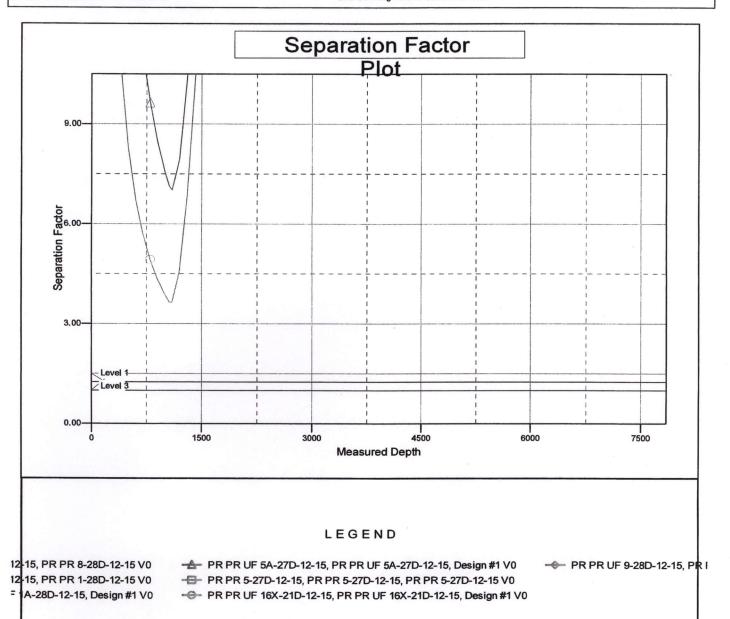
Offset Depths are relative to Offset Datum

Central Meridian is 111° 30' 0.0000 W°

Coordinates are relative to: PR PR UF 2-28D-12-15

Coordinate System is US State Plane 1927 (Exact solution), Utah Central 4302

Grid Convergence at Surface is: 0.81°



## PRESSURE CONTROL EQUIPMENT - Schematic Attached

- A. Type: Eleven (11) Inch Double Gate Hydraulic BOP with Eleven (11) Inch Annular Preventer. The blow out preventer will be equipped as follows:
  - 1. One (1) blind ram (above).

2. One (1) pipe ram (below).

- 3. Drilling spool with two (2) side outlets (choke side 3-inch minimum, kill side 2-inch minimum).
- 4. 3-inch diameter choke line.
- 5. Two (2) choke line valves (3-inch minimum).
- 6. Kill line (2-inch minimum).
- 7. Two (2) chokes.
- 8... Two (2) kill line valves, one of which shall be a check valve (2-inch minimum).
- 9. Upper kelly cock valve with handles available.
- 10. Safety valve(s) & subs to fit all drill string connections in use.
- 11. Pressure gauge on choke manifold.
- 12. Fill-up line above the uppermost preventer.
- B. Pressure Rating: 3,000 psi
- C. Testing Procedure:

#### Annular Preventer

At a minimum, the Annular Preventer will be pressure tested to 50% of the rated working pressure for a period of ten (10) minutes or until provisions of the test are met, whichever is longer.

At a minimum the above pressure test will be performed:

- 1. When the annular preventer is initially installed;
- 2. Whenever any seal subject to test pressure is broken;
- 3. Following related repairs; and
- 4. At thirty (30) day intervals.

In addition, the Annular Preventer will be functionally operated at least weekly.

### Blow-Out Preventer

At a minimum, the BOP, choke manifold, and related equipment will be pressure tested to the approved working pressure of the BOP stack (if isolated from the surface casing by a test plug) or to 70% of the internal yieldstrength of the surface casing (if the BOP is not isolated from the casing by a test plug). Pressure will be

maintained for a period of at least ten (10) minutes or until the requirments of the test are met, whichever is longer.

At a minimum, the above pressure test will be performed:

- 1. When the BOP is initially installed;
- 2. Whenever any seal subject to test pressure is broken;
- 3. Following related repairs; and
- 4. At thirty (30) day intervals.

In addition the pipe and blind rams will be activated each trip, but not more than once each day. All BOP drills and tests will be recorded in the IADC driller's log.

## D. Choke Manifold Equipment:

All choke lines will be straight lines unless turns use tee blocks or are targeted with running tees, and will be anchored to prevent whip and vibration.

#### E. Accumulator:

The accumulator will have sufficient capacity to open the hydraulically-controlled choke line valve (if so equipped), close all rams plus the annular preventer, and retain a minimum of 200 psi above precharge on the closing manifold without the use of closing unit pumps. The fluid reservoir capacity will be double the usable fluid volume of the accumulator system capacity and the fluid level of the reservoir will be maintained at the manufacturer's recommendations.

The BOP system will have two (2) independent power sources to close the preventers. Nitrogen bottles (3 minimum) will be one (1) of these independent power sources and will maintain a charge equal to the manufacturer's specifications.

The accumulator precharge pressure test will be conducted prior to connecting the closing unit to the BOP stack and at least once every six (6) months thereafter. The accumulator pressure will be corrected if the measured precharge pressure is found to be above or below the maximum or minimum limits specified in the Onshore Oil & Gas Order Number 2.

A manual locking device (i.e. hand wheels) or automatic locking device will be installed on all systems of 2M or greater. A valve will be installed in the closing line as close as possible to the annular preventer to act as a locking device. This valve will be maintained in the open position and will be closed only when the power source for the accumulator is inoperative.

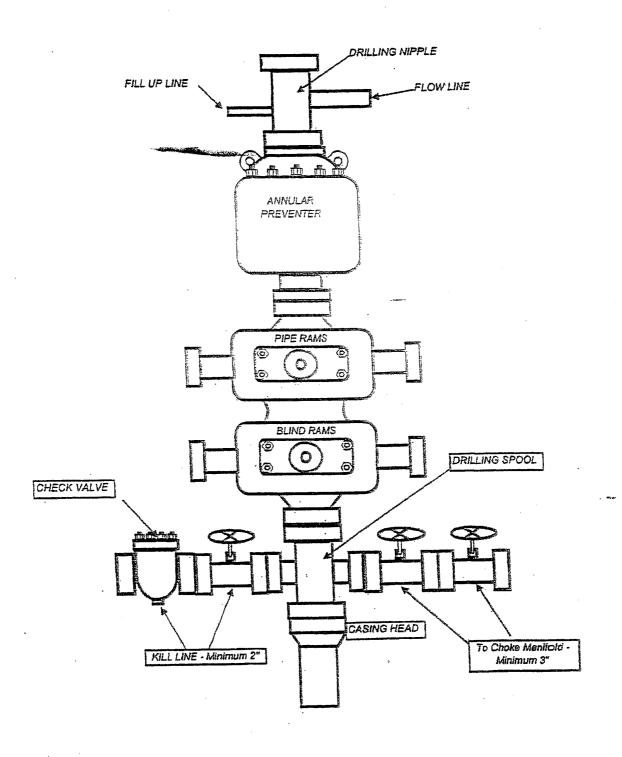
Remote controls shall be readily accessible to the driller. Remote controls for all 3M or greater systems will be capable of closing all preventers. Remote controls for 5M or greater systems will be capable of both opening and closing all preventers. Master controls will be at the accumulator and will be capable of opening and closing all preventers and the choke line valve (if so equipped).

### F. Miscellaneous Information:

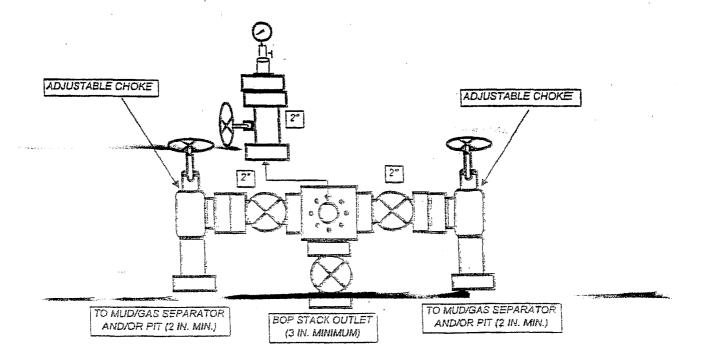
The Blow-Out Preventer and related pressure control equipment will be installed, tested and maintained in compliance with the specifications in and requirements of Onshore Oil & Gas Order Number 2. The choke manifold will be located outside the rig sub-structure. The hydraulic BOP closing unit will be located at least twenty-five (25) feet from the well head but readily accessible to the driller. Exact locations and configurations of the hydraulic BOP closing unit will depend upon the particular rig contracted to drill this hole.

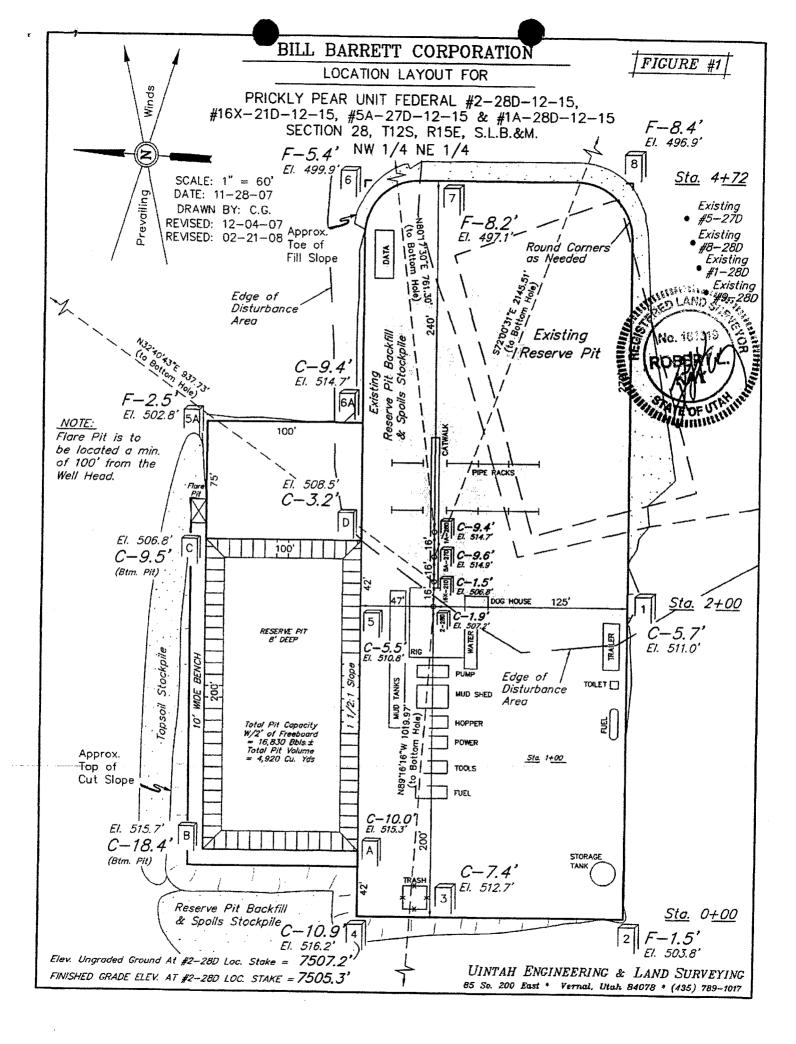
A flare line will be installed after the choke manifold, extending 125 feet (minimum) from the center of the drill hole to a separate flare pit.

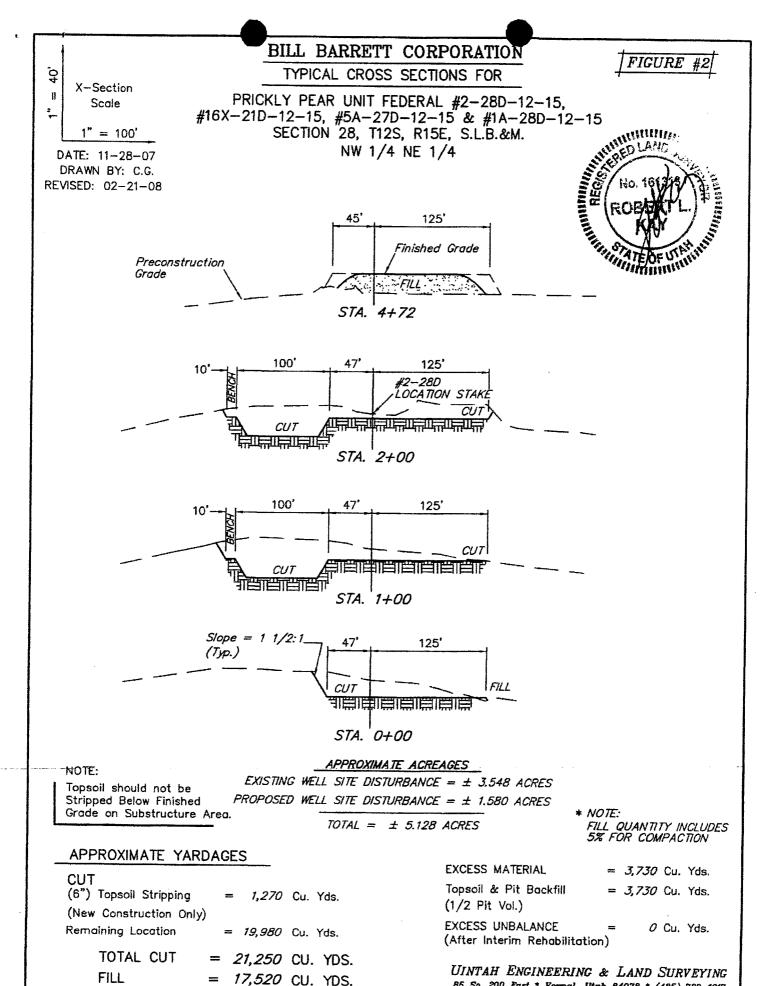
# BILL BARRETT CORPORATION TYPICAL 3,000 p.s.i. BLOWOUT PREVENTER



## TYPICAL 3,000 p.s.i. CHOKE MANIFOLD







85 So. 200 East \* Vernal, Utah 84078 \* (435) 789-1017

PRICKLY PEAR UNIT FEDERAL #2-28D-12-15, #16X-21D-12-15, #5-27A-12-15 & #1A-28D-12-15 LOCATED IN CARBON COUNTY, UTAH SECTION 28, T12S, R15E, S.L.B.&M.

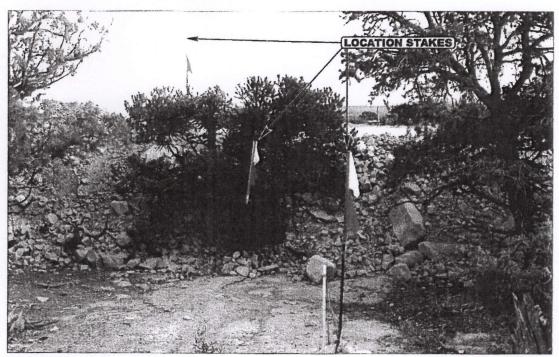


PHOTO: VIEW OF LOCATION STAKES

**CAMERA ANGLE: EASTERLY** 

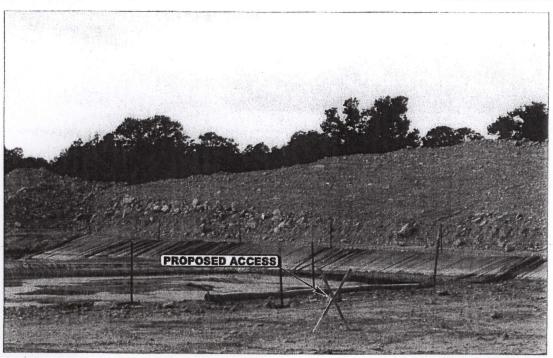


PHOTO: VIEW OF PROPOSED ACCESS

**CAMERA ANGLE: NORTHWESTERLY** 



Uintah Engineering & Land Surveying

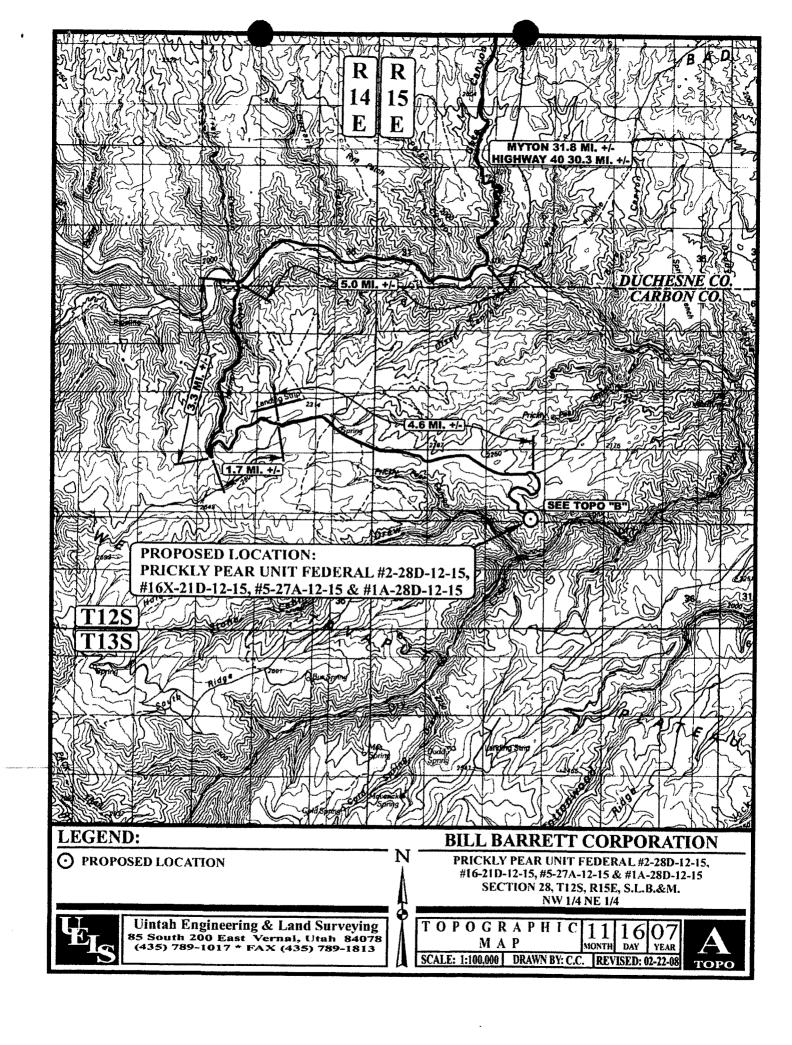
85 South 200 East Vernal, Utah 84078
435-789-1017 uels@uelsinc.com

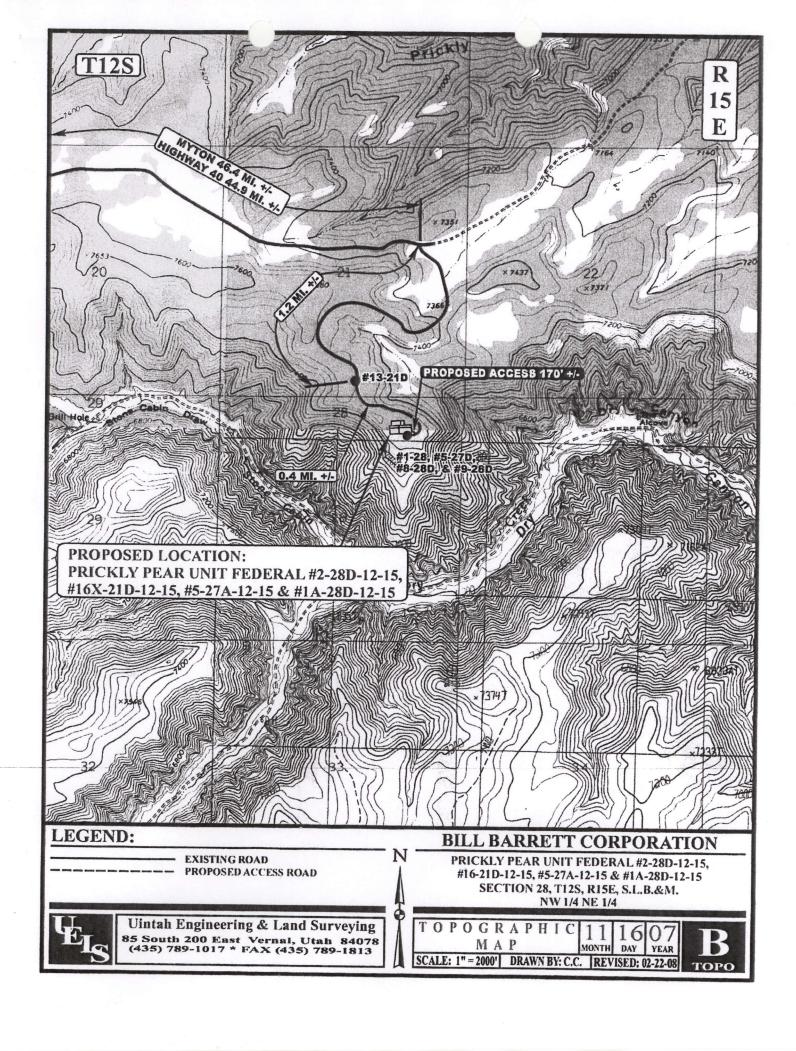
**LOCATION PHOTOS** 

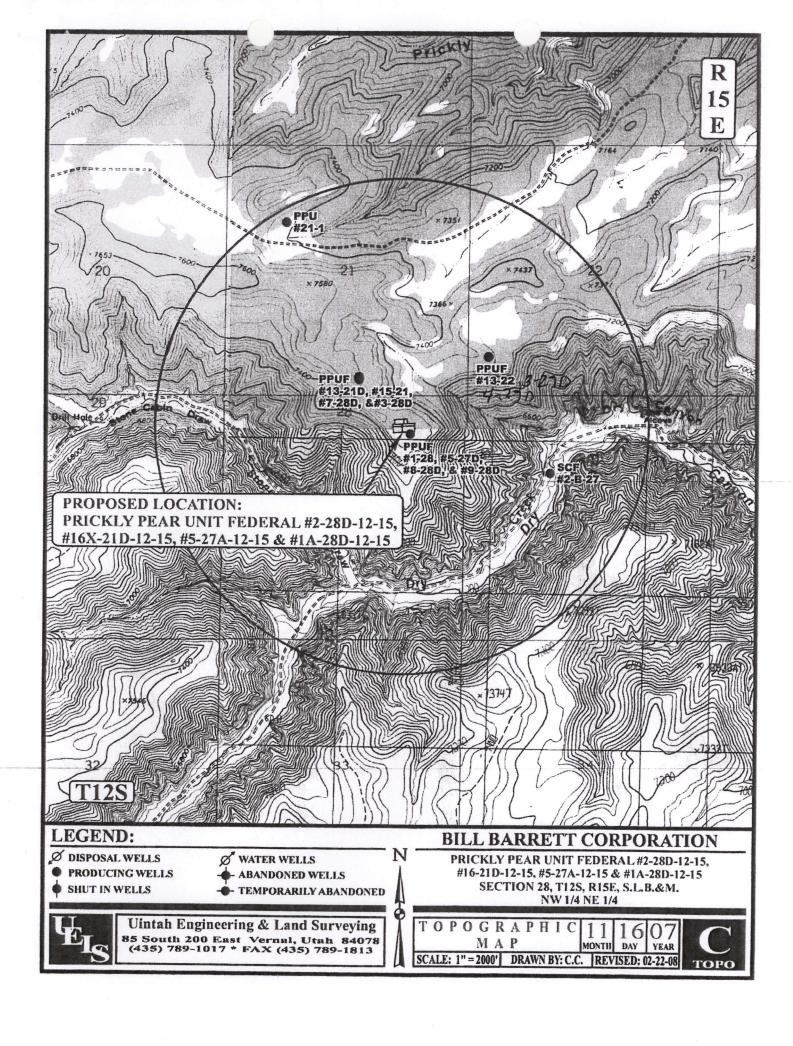
11 16 07 MONTH DAY YEAR

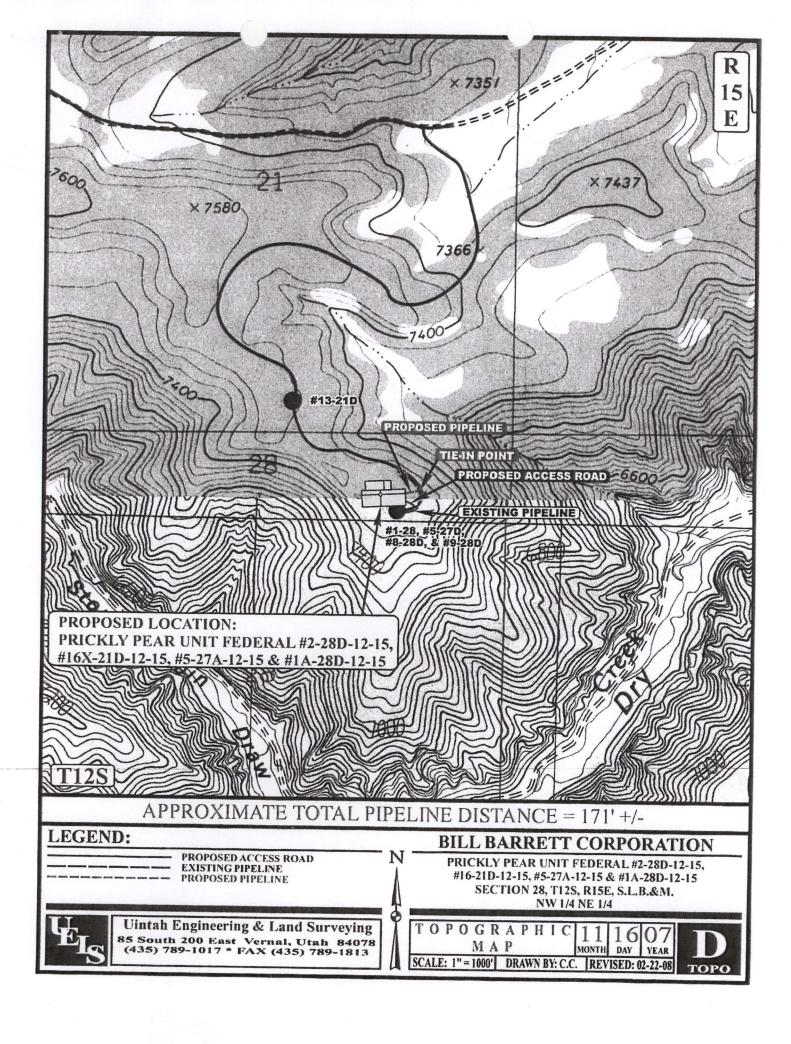
**РНОТО** 

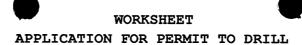
TAKEN BY: D.R. | DRAWN BY: C.C. | REVISED: 02-22-08



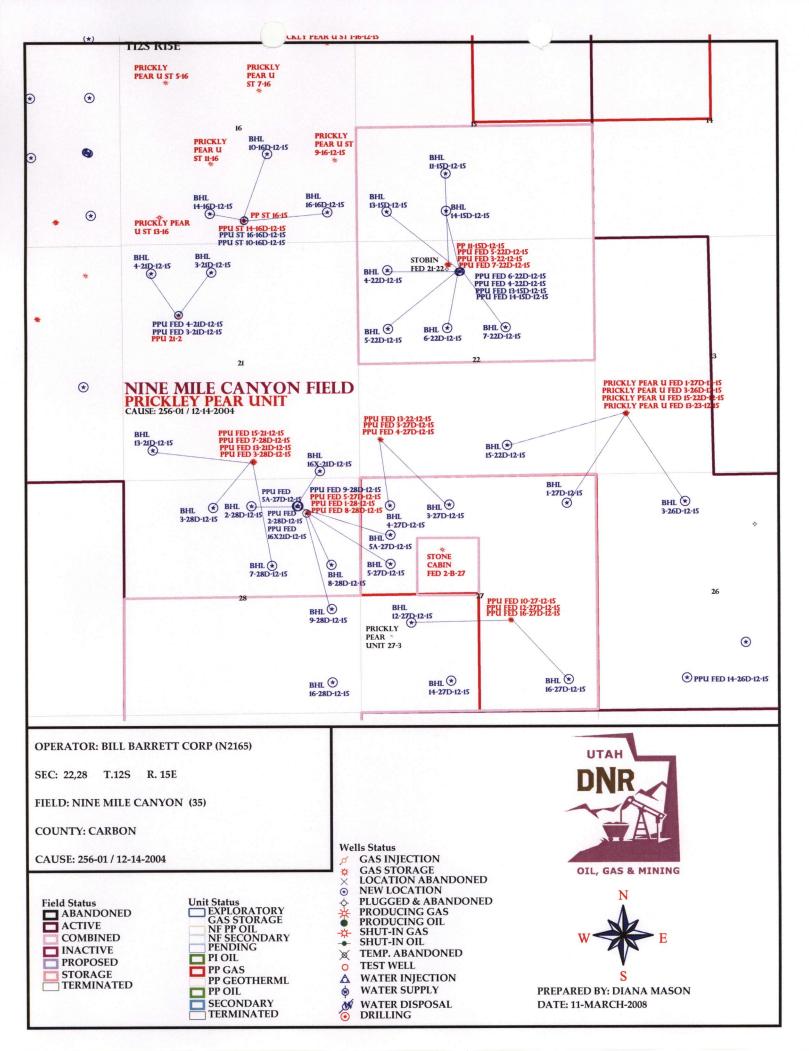








APD RECEIVED: 03/10/2008	API NO. ASSIGNED: 43-007-31362
WELL NAME: PPU FED 2-28D-12-15  OPERATOR: BILL BARRETT CORP ( N2165 )  CONTACT: TRACEY FALLANG	PHONE NUMBER: 303-312-8134
PROPOSED LOCATION:	INSPECT LOCATN BY: / /
NWNE 28 120S 150E SURFACE: 0650 FNL 1412 FEL	Tech Review Initials Date
BOTTOM: 0632 FNL 2432 FEL	Engineering
COUNTY: CARBON LATITUDE: 39.75022 LONGITUDE: -110.2367	Geology
UTM SURF EASTINGS: 565390 NORTHINGS: 4400	O4 Surface
LEASE TYPE: 1 - Federal  LEASE NUMBER: UTU-73670  SURFACE OWNER: 1 - Federal	PROPOSED FORMATION: PRRV COALBED METHANE WELL? NO
Plat  Plat  Bond: Fed[1] Ind[] Sta[] Fee[]  (No. WYB000040 )  Potash (Y/N)  Oil Shale 190-5 (B) or 190-3 or 190-13  Water Permit  (No. 90-1846 )  RDCC Review (Y/N)  (Date: )  MP Fee Surf Agreement (Y/N)  Intent to Commingle (Y/N)	LOCATION AND SITING:
STIPULATIONS:	onve



# **United States Department of the Interior**

#### BUREAU OF LAND MANAGEMENT

Utah State Office P.O. Box 45155 Salt Lake City, Utah 84145-0155

IN REPLY REFER TO: 3160 (UT-922)

March 11, 2008

#### Memorandum

To:

Assistant Field Office Manager Resources,

Moab Field Office

From:

Michael Coulthard, Petroleum Engineer

Subject:

2008 Plan of Development Prickly Pear Unit

Carbon County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2008 within the Prickly Pear Unit, Carbon County, Utah.

API#

WELL NAME

LOCATION

(Proposed PZ Price River)

43-007-31358 PPU Fed 13-15D-12-15 Sec 22 T12S R15E 0719 FNL 2263 FWL BHL Sec 15 T12S R15E 0660 FSL 0660 FWL

43-007-31359 PPU Fed 14-15D-12-15 Sec 22 T12S R15E 0712 FNL 2294 FWL BHL Sec 15 T12S R15E 0660 FSL 1980 FWL

43-007-31360 PPU Fed 4-22D-12-15 Sec 22 T12S R15E 0722 FNL 2247 FWL BHL Sec 22 T12S R15E 0660 FNL 0660 FWL

43-007-31361 PPU Fed 6-22D-12-15 Sec 22 T12S R15E 0716 FNL 2279 FWL BHL Sec 22 T12S R15E 1980 FNL 1980 FWL

43-007-31362 PPU Fed 2-28D-12-15 Sec 28 T12S R15E 0650 FNL 1412 FEL BHL Sec 28 T12S R15E 0632 FNL 2432 FEL

43-007-31363 PPU Fed 16X-21D-12-15 Sec 28 T12S R15E 0649 FNL 1396 FEL BHL Sec 21 T12S R15E 0138 FSL 0899 FEL

43-007-31364 PPU Fed 5A-27D-12-15 Sec 28 T12S R15E 0648 FNL 1380 FEL BHL Sec 27 T12S R15E 1320 FNL 0660 FWL

This office has no objection to permitting the wells at this time.

bcc: File - Prickly Pear Unit
 Division of Oil Gas and Mining

Central Files Agr. Sec. Chron Fluid Chron

MCoulthard:mc:3-11-08



GARY R. HERBERT
Lieutenant Governor

# State of Utah DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER Executive Director

**Division of Oil Gas and Mining** 

JOHN R. BAZA
Division Director

March 11, 2008

Bill Barrett Corporation 1099 18th Street, Suite 2300 Denver, CO 80202

Re:

Prickly Pear Unit Federal 2-28D-12-15 Well, Surface Location 650' FNL, 1412' FEL,

NW NE, Sec. 28, T. 12 South, R. 15 East, Bottom Location 632' FNL, 2432' FEL,

NW NE, Sec. 28, T. 12 South, R. 15 East, Carbon County, Utah

#### Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann.§ 40-6-1 *et seq.*, Utah Administrative Code R649-3-1 *et seq.*, and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-007-31362.

Sincerely,

Gil Hunt

Associate Director

pab Enclosures

cc:

Carbon County Assessor

Bureau of Land Management, Moab Office



Operator:		Bill Barrett Corporation					
Well Name & Num	ber	Prickly	Pear Unit Federal 2-28D	-12-15			
API Number:		43-007-	31362				
Lease:		UTU-7	3670				
Surface Location:	NW NE	Sec. 28	T. 12 South	<b>R.</b> 15 East			
<b>Bottom Location:</b>	NW NE	Sec. 28	T. 12 South	R. <u>15 East</u>			

#### **Conditions of Approval**

#### 1. General

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

#### 2. Notification Requirements

Notify the Division within 24 hours of spudding the well.

Contact Carol Daniels at (801) 538-5284

Notify the Division prior to commencing operations to plug and abandon the well.

Contact Dustin Doucet at (801) 538-5281 (801) 733-0983 home

### 3. Reporting Requirements

All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

- 4. State approval of this well does not supersede the required federal approval, which must be obtained prior to drilling.
- 5. In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

Form 3160 -3 (August 2007)

# COPYCONFIDENTIAL

DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

		~, ~,	, 20,10	1 to 1 to
75, 4 Lease Se UTU-73670	erial No.		2:	30

APPLICATION FOR PERMIT TO	DRILL OR REENTER		6. If Indian, Alloted	or Tribe Name	
la. Type of work:	TER		7 If Unit or CA Agr Prickly Pear / UTU	reement, Name and No. J-79487	
lb. Type of Well: ☐ Oil Well	Single Zone 🗸 Mul	tiple Zone	8. Lease Name and Prickly Pear Unit F	Well No. Federal 2-28D-12-1	5
2. Name of Operator Bill Barrett Corporation			9. API Well No.	31362	
3a. Address 1099 18th Street, Suite 2300 Denver, CO 80202	3b. Phone No. (include area code) 303-312-8134	<del></del>	10. Field and Pool, or Undesignated/Was	Exploratory	
<ol> <li>Location of Well (Report location clearly and in accordance with as At surface NWNE, 650' FNL, 1412' FEL</li> </ol>	rty State requirements.*)	:	11. Sec., T. R. M. or E Sec. 28, T12S-R15	Blk.and Survey or Area	
At proposed prod. zone NWNE, 632' FNL, 2432' FEL, Sec.	. 28		360. 20, 1123-K1	)E	
<ol> <li>Distance in miles and direction from nearest town or post office* approximately 50 miles from Myton, Utah</li> </ol>			12. County or Parish Carbon County	13. State UT	
<ol> <li>Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)</li> </ol>	16. No. of acres in lease 1440	1 -	g Unit dedicated to this v 40 acres	well	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth 7700' MD	1	BIA Bond No. on file ide Bond #WYB000	040	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 7507' graded ground	22. Approximate date work will st 06/01/2008	art*	23. Estimated duration 45 days	n	_
	24. Attachments				
The following, completed in accordance with the requirements of Onshor	re Oil and Gas Order No.1, must be	attached to this	s form:		
<ol> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan.</li> <li>A Surface Use Plan (if the location is on National Forest System SUPO must be filed with the appropriate Forest Service Office).</li> </ol>	Lands, the 5. Operator certifi	cation	s unless covered by an		•
25. Signature Jacey Fallary	Name (Printed/Typed) Tracey Fallang			Date 3/7/08	= ?
Environmental/Regulatory Analyst				1 1 0	
Approved by (Signature) /S/ % Synth Jackson	Name (Printed/Typed) / 5/	ول شارعا الأ	ickean	Date 4/17/08	
Agriciant Field Manager,	$\mathbb{N} dx + 5$	ion of Ba	**		
Application approval loss horivation country which the applicant holds	legal or equitable title to those righ	ts in the subje	ect lease which would er	ntitle the applicant to	

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 2)

conduct operations thereon. Conditions of approval, if any, are attached.

\*(Instructions on page 2)

RECEIVED APR 2 2 2008

# T12S, R15E, S.L.B.&M.

Lot: 39.751881° 5285.28' (G.L.O.) Long: 110.232592\* Bottom Hole 1412 PRICKLY PEAR UNIT FEDERAL #2-28D-12-15 "Elev. Ungraded Ground = 7507" (G.L.O.) LINE TABLE LINE DIRECTION LENGTH N89"16'16"W 1019.97 5280.00 DISTANCE TABLE N00.03'W FROM BEARING DISTANCE #2-280-12-15 #5-27D \$60"31"06"F 297.01 #2-28D-12-15 #8-28D \$5873"08"E 286,72 #2-280-12-15 #1-28D \$55'37'34"E 276.56 #2-28D-12-15 #9-28D S55'37'34"E 276.56 BASIS OF BEARINGS BASIS OF BEARINGS IS A G.P.S. OBSERVATION. 1909 Brass Cop 2.0° High Lat: 39.737522° Long: 110.232558

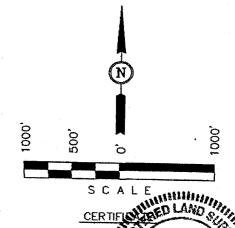
S89'47'W - 5281.32' (G.L.O.)

## BILL BARRETT CORPORATION

Well location, PRICKLY PEAR UNIT FEDERAL #2-28D-12-15, located as shown in the NW 1/4 NE 1/4 of Section 28, T12S, R15E, S.L.B.&M., Carbon County, Utah.

#### BASIS OF ELEVATION

COTTON TRIANGULATION STATION LOCATED IN THE NW 1/4 OF SECTION 31, T12S, R16E, S.L.B.&M. TAKEN FROM THE TWIN HOLLOW QUADRANGLE, UTAH, CARBON COUNTY, 7.5 MINUTE SERIES (TOPOGRAPHICAL MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 7386 FEET.



REGISTANDE OF US SANTA

REVISED: 02-21-08

1909 Brass Cap

0.6' High, Pile of Stones

UINTAH ENGINEERING & LAND SURVEYING 85 SOUTH 200 EAST - VERNAL, UTAH 84078

(435) 789-1017

| DATE SURVEYED: | DATE DRAWN: | 11-02-07 | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 | | 11-28-07 |

#### LEGEND:

\_ = 90° SYMBOL

= PROPOSED WELL HEAD.

= SECTION CORNERS LOCATED.

Bill Barrett Corporation

Prickly Pear Unit Federal 2-28D-12-15

Prickly Pear Unit

Lease, Surface: UTU-73670 Bottom-hole: UTU-73670

Location, Surface: NW/NE Sec. 28, T12S, R15E Bottom-hole: NW/NE Sec. 28, T12S, R15E

Carbon County, Utah

A COMPLETE COPY OF THIS APPROVED PERMIT and Conditions of Approval shall be maintained on location during all construction and drilling operations, and shall be available to contractors to ensure compliance.

#### CONDITIONS OF APPROVAL

Approval of this application does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Be advised that Bill Barrett Corporation is considered to be the operator of the above well and is responsible under the terms and conditions of the lease for the operations conducted on the leased lands.

Bond coverage for this well is provided by **WYB000040** (Principal – Bill Barrett Corporation) via surety consent as provided for in 43 CFR 3104.2.

This office will hold the aforementioned operator and bond liable until the provisions of 43 CFR 3106.7-2 continuing responsibility are met.

This permit will be valid for a period of two years from the date of approval. After permit termination, a new application must be filed for approval.

All lease operations will be conducted in full compliance with applicable regulations (43 CFR 3100), Onshore Oil and Gas Orders, lease terms, notices to lessees, and the approved plan of operations. The operator is fully responsible for the actions of his subcontractors. Failure to comply with the provisions of this permit, including applicable regulations, stipulations, and/or approval conditions, will be considered a violation subject to the enforcement provisions of 43 CFR Subpart 3163.

#### A. DRILLING PROGRAM

- 1. The proposed 3M BOP system is adequate for anticipated conditions. Installation, testing and operation of the system shall be in conformance with Onshore Oil and Gas Order No. 2.
- 2. This well is located on the mesa immediately adjacent to Dry Canyon and Stone Cabin Draw. In order to isolate the wellbore from the canyon wall, the surface casing shall be set to a depth of not less than 1500 feet. This will place the surface casing shoe below the lowest elevation within one mile of the well.
- 3. Surface casing shall be cemented to surface. The cement volume shall be adjusted to accommodate the greater casing length.
- 4. If air drilling operations are utilized, the requirements of Onshore Oil and Gas Order No. 2 (Order 2), Part III.E *Special Drilling Operations*, shall be implemented.
- 5. Concurrent approval from the State of Utah, Division of Oil, Gas & Mining (DOGM) is required before conducting any surface disturbing activities.
- 6. The proposal included a provision for using minor amounts of diesel in the drilling fluid system. Diesel may be added to the system only after cementing the surface casing into place.
- 7. The proposal included options for using one of three different grades of production casing. Any of the three options may be used.
- 8. A cement bond log (CBL) or other appropriate tool for determining top-of-cement, shall be run on the production casing string, unless cement is circulated to surface.
- 9. If logging reveals that the cementing objectives were not met, remedial cementing will be required.
- 10. Locally, the Green River Formation is known to contain oil, gas, oil shale and tar sand deposits. However, the lateral occurrence, distribution and grade of the oil shale and tar sand deposits are not well defined. The operator shall pay particular attention to this section, and shall attempt to identify and describe any of these resources that may be penetrated. Any information obtained on these resources shall be included as part of the Well Completion Report.
- 11. The use of a flow conditioner in lieu of straightening vanes in the gas meter run cannot be approved with the information provided. This proposal is not consistent with the provisions of Onshore Oil & Gas Order No. 5, and as such, can only be considered for approval as a "variance" from Order No. 5. A written request for variance would identify the Order No. 5 requirement(s) from which the variance is being requested, and it would include supporting justification as to how the alternate method of measurement would meet or exceed the minimum standards established in Order No. 5. A variance request for the use of a flow conditioner would also include the make, model, dimensions, and description of use for the specific flow conditioner being proposed.

# UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT Price Field Office Price, Utah

#### SURFACE USE CONDITIONS OF APPROVAL

Project Name: Prickly Pear Un	nit Drilling	<del></del>		
Operator: Bill Barrett Corpo	oration			
Well:				
<u>Name</u>	<u>Number</u>	Section SH	TWP/RNG	<u>Lease</u> Number
Prickly Pear Unit Federal	2-28D-12-15	28	12S/15E	UTU-73670

### I Site Specific Conditions of Approval

- 1. A pre-construction field meeting may be conducted prior to beginning any dirt work approved under this APD. The operator shall contact the BLM Authorized Officer Don Stephens @ 435-636-3608 at least 48-hours prior to beginning operations so that the meeting can be scheduled. The operator is responsible for having all contractors present (dirt contractors, drilling contractor, pipeline contractor, project oversight personnel, etc.) including the overall field operations superintendent, and for providing all contractors copies of the approved APD(s), project map and BLM Conditions of Approval pertinent to the work that each will be doing.
- 2. The following appendices are attached for your reference. They are to be followed as conditions of approval:
  - a. SM-A, Seed Mixture for Berms, Topsoil Piles, Pad Margins
  - b. SM-B, Seed Mixture for Final Reclamation (buried pipelines, abandoned pads, roads, etc.)
  - c. TMC1, Browse Hand Planting Tubeling Mixtures
  - d. Lease Stipulations, see attached Table 2.3 from EA for West Tavaputs Plateau Drilling Program.
  - e. Applicant-committed environmental protection measures, see attached Appendix B
- 3. The company shall furnish and apply water or other means satisfactory to the authorized officer for dust control. Magnesium chloride could be applied at distances greater than 500 feet from canyon bottoms, streams and riparian areas.
- 4. The company shall submit interim reclamation plans and location layout with proposed interim reclaimed areas to the authorized office within 90 days of the spudding of the well.

- 5. The area that encompasses the well location and road is environmentally sensitive including fragile soils and vegetation. The operator may be required to perform special measures such as mulching, erosion fencing, use of erosion fabric, etc. per the direction of the BLM Authorized Officer to stabilize any disturbed areas and ensure the reestablishment of long-term perennial vegetation.
- 6. The operator will be responsible for performing any remediation and/or necessary road upgrading (e.g. elevating, surfacing, culverts, low-water crossings, water-wings, surfacing, etc.) as directed by the BLM Authorized Officer, resulting from untimely access.
- 7. All equipment and personnel used during drilling and construction activities will be restricted to only approve access roads.
- 8. If the well is productive and after completion operations, the road will be upgraded to a **Resource Road** status in accordance with the *Surface Operating Standards for Oil & Gas Exploration and Development*, Fourth Edition and/or BLM Manual Section 9113 concerning road construction standards on projects subject to federal jurisdiction.
- 9. All permanent above-ground structures (e.g., production equipment, tanks, etc.) not subject to safety requirements will be painted to blend with the natural color of the landscape. The paint used will be a color which simulates "Standard Environmental Colors." The color selected for the Prickly Pear Unit Federal 2-28D-12-15 well is Olive Black, 5WA20-6. All facilities will be painted the designated color at the time of installation.
- 10. All trees salvaged from the construction of the well pad will be clearly segregated from the spoil material, to prevent burying of trees in the spoil material.
- 11. No salvaged trees will be pushed up against live trees or buried in the spoil material.
- 12. All areas not needed for production of the well will be reclaimed within 90 days of completion of the last well if weather conditions are favorable, unless the BLM Authorized Officer gives an extension.
- 13. Reserve pits will be closed as soon as possible, but no later than 90 days from time of drilling/well completion, unless the BLM Authorized Officer gives an extension. Squeezing of pit fluids and cuttings is prohibited. Pits must be dry of fluids or they must be removed via vac-truck or other environmentally acceptable method prior to backfilling, re-contouring and replacement of topsoil. Mud and cuttings left in pit must be buried at least 3-feet below re-contoured grade. The operator will be responsible for recontouring any subsidence areas that develop from closing a pit before it is sufficiently dry.
- 14. The operator will drill seed on the contour to a depth of 0.5 inch, followed by cultipaction to compact the seedbed, preventing soil and seed losses. To maintain quality and purity, the current years tested, certified seed with a minimum germination rate of 80% and a minimum purity of 90% will be used.
- 15. Please contact Don Stephens, Natural Resource Specialist, (435) 636-3608, Bureau of Land Management, Price Field Office, if there are any questions concerning these surface use COAs.
- 16. A Paleontologist acceptable to the BLM will monitor during surface disturbing activities. If paleontologic resources are uncovered during surface disturbing activities, the paleontologist shall immediately notify the Authorized Officer (AO). The AO will

arrange for a determination of significance and, if necessary, recommend a recovery or avoidance plan.

- 17. The pipeline(s) shall be buried.
- 18. During the activities of road maintenance, new road construction or the construction of well pads, if any standing live or dead trees are damaged, cut down or knocked over by grading or construction equipment, actions would be taken to remove excessive vegetation from the road or pad edge.
- 19. An impermeable liner shall be used in the containment area of all permanent condensate and water tanks.
- 20. Gas shall be measured on the well pad unless the BLM Authorized Officer authorizes another location.
- 21. If the well has not been spudded by APD Approval date + 2 years the APD will expire and the operator is to cease all operations related to preparing to drill the well.
- 22. The Mexican Spotted Owl Conservation Measures to avoid impacts:
  - a. Employ best available technology on production wells and compression equipment within .5 miles of canyon habitat model.
  - b. Upon discovery of individuals or sightings of this species, halt construction/drilling activities and notify authorized official.
- 23. No construction/drilling activities shall occur during the time of the year November 1 through April 15 for sage-grouse winter habitat.
- 24. Mule deer on critical winter ranges shall be protected by seasonal restrictions on construction from November 1 through April 15 where federal permits are required.
- 25. Elk on high priority and critical winter ranges would be protected by seasonal restrictions on construction from November 1 through April 15.
- 26. Centralize tanks and facilities with old wells. Utilize low profile tanks.
- 27. Leave trees on the edge of the well site.
- 28. The operator shall contact the BLM Authorized Officer Don Stephens @ 435-636-3608 at least 48-hours prior to the filling and reclamation of pits.

#### II Standard Conditions of Approval

#### A. General

- 1. If any cultural values [sites, artifacts, human remains] are observed during operation of this lease/permit/right-of-way, they will be left intact and the Price Field Manager notified. The authorized officer will conduct an evaluation of the cultural values to establish appropriate mitigation, salvage or treatment. The operator is responsible for informing all persons in the area who are associated with this project that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during construction, the operator is to immediately stop work that might further disturb such materials, and contact the authorized BLM officer (AO). Within five working days the AO will inform the operator as to:
  - whether the materials appear eligible for the National Register of Historic Places;
  - the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary); and,

- a time-frame for the AO to complete an expedited review under 36 CFR 800.11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction measures.
- 2. The operator shall restrict travel on unimproved roads during periods of inclement weather or spring thaw when the possibility exists for excessive surface resource damage (e.g., rutting in excess of 4-inches, travel outside roadway, etc.).
- 3. The Companies will provide georeferenced spatial data depicting as-built locations of all facilities, wells, roads, pipelines, power lines, and other related facilities to the BLM by November 1 of each year until completion of project construction activities has occurred.
- 4. If any dead or injured threatened, endangered, proposed, or candidate species is located during construction or operation, the BLM Price Field Office (435-636-3600) shall be notified within 24 hours.
- 5. The Company will conduct clearance surveys for threatened, endangered or other special-concern species at the optimum time. This will require coordination with the BLM before November 1 annually to review the potential for disturbance and to agree on inventory parameters.

#### **B.** Construction

- 1. The operator will limit vegetation removal and the degree of surface disturbance wherever possible. Where surface disturbance cannot be avoided, all practicable measures will be utilized to minimize erosion and stabilize disturbed soils.
- 2. Construction and drilling activity will not be conducted using frozen or saturated soil material during periods when watershed damage or excessive rutting is likely to occur.
- 3. Remove all available topsoil from constructed well locations including areas of cut and fill, and stockpile at the site. Topsoil will also be salvaged for use in reclamation on all other areas of surface disturbance (roads, pipelines, etc.). Clearly segregate topsoil from excess spoil material. Any topsoil stockpiled for one year or longer will be signed and stabilized with annual ryegrass or other suitable cover crop.
- 4. The operator will not push soil material and overburden over side slopes or into drainages. All soil material disturbed will be placed in an area where it can be retrieved without creating additional undue surface disturbance and where it does not impede watershed and drainage flows.
- 5. Construct the backslope no steeper than 1½:1, and construct the foreslope no steeper than 2:1, unless otherwise directed by the BLM Authorized Officer.
- 6. Maintain a minimum 20-foot undisturbed vegetative border between toe-of-fill of pad and/or pit areas and the edge of adjacent drainages, unless otherwise directed by the BLM Authorized Officer.
- 7. With the overall objective of minimizing surface disturbance and retaining land stability and productivity, the operator shall utilize equipment that is appropriate to the scope and scale of work being done for roads and well pads (utilize equipment no larger than needed for the job).

- 8. Reserve pits will be adequately fenced during and after drilling operations until pit is reclaimed so as to effectively keep out wildlife and livestock. Adequate fencing, in lieu of more stringent requirements by the surface owner, is defined as follows:
  - Construction materials will consist of steel or wood posts. Three or four strand wire (smooth or barbed) fence or hog panel (16-foot length by 50-inch height) or plastic snow fence must be used with connectors such as fence staples, quick-connect clips, hog rings, hose clamps, twisted wire, etc. Electric fences will not be allowed.
  - Construction standards: Posts shall be firmly set in ground. If wire is used, it must be taut and evenly spaced, from ground level to top wire, to effectively keep out animals. Hog panels must be tied securely into posts and one another using fence staples, clamps, etc. Plastic snow fencing must be taut and sturdy. Fence must be at least 2-feet from edge of pit. 3 sides fenced before beginning drilling, the fourth side fenced immediately upon completion of drilling and prior to rig release. Fence must be left up and maintained in adequate condition until pit is closed.
- 9. The reserve pit will be oriented to prevent collection of surface runoff. After the drilling rig is removed, the operator may need to construct a trench on the uphill side of the reserve pit to divert surface drainage around it. If constructed, the trench will be left intact until the pit is closed.
- 10. The reserve pit will be lined with an impermeable liner if permeable subsurface material is encountered. An impermeable liner is any liner having a permeability of less than 10<sup>-7</sup> cm/sec. The liner will be installed so that it will not leak and will be chemically compatible with all substances that may be put in the pit. Liners made of any man-made synthetic material will be of sufficient strength and thickness to withstand normal installation and pit use. In gravelly or rocky soils, a suitable bedding material such as sand will be used prior to installing the liner.
- 11. The reserve pit will be constructed so that at least half of its total volume is in solid cut material (below natural ground level).
- 12. The reserve pit shall have 2 foot of freeboard maintained at all times to prevent overflow of fluids.
- 13. Culverts will be placed on channel bottoms on firm, uniform beds, which have been shaped to accept them, and aligned parallel to the channel to minimize erosion. Backfill will be thoroughly compacted.
- 14. The minimum diameter for culverts will be 18 inches. However, all culverts will be appropriately sized in accordance with standards in BLM Manual 9113.
- 15. Construction and other project-related traffic will be restricted to approved routes. Cross-country vehicle travel will not be allowed.
- 16. Maximum design speed on all operator-constructed and maintained roads will not exceed 25 miles per hour.
- 17. Pipeline construction shall not block nor change the natural course of any drainage. Pipelines shall cross perpendicular to drainages. Pipelines shall not be run parallel in drainage bottoms. Suspended pipelines shall provide adequate clearance for maximum runoff.
- 18. Pipeline trenches shall be compacted during backfilling. Pipeline trenches shall be routinely inspected and maintained to ensure proper settling, stabilization and reclamation.

- 19. The pipeline right-of-way will be brush-hogged to prevent unnecessary disturbance. Only those areas where safety, absolute need for construction or other regulations may warrant the use of topsoil removal by blading or scalping.
- 20. During construction, emissions of particulate matter from well pad and road construction would be minimized by application of water or other non-saline dust suppressants with at least 50 percent control efficiency. Dust inhibitors (surfacing materials, non-saline dust suppressants, and water) will be used as necessary on unpaved roads that present a fugitive dust problem. The use of chemical dust suppressants on public surface will require prior approval from the BLM Authorized Officer.
- 21. The operator shall submit a Sundry Notice (Form 3160-5) to BLM for approval prior to construction of any new surface disturbing activities that are not specifically addressed in the approved APD.

## C. Operations/Maintenance

- 1. If in the process of air drilling the wells there is a need to utilize mud, all circulating fluids will be contained either in an approved pit or in an aboveground containment tank. The pit or containment tank will be large enough to safely contain the capacity of all expected fluids without danger of overflow. Fluid and cuttings will not be squeezed out of the pit, and the pit will be reclaimed in an expedient manner.
- 2. Confine all equipment and vehicles to the access road(s), pad(s), and area(s) specified in the approved APD.
- 3. All waste, other than human waste and drilling fluids, will be contained in a portable trash cage. This waste will be transported to a State approved waste disposal site immediately upon completion of drilling operations. No trash or empty barrels will be placed in the reserve pit or buried on location. All state and local laws and regulations pertaining to disposal of human and solid waste will be complied with.
- 4. Rat and mouse holes shall be filled and compacted from the bottom to the top immediately upon release of the drilling rig from the location.
- 5. The operator will be responsible for prevention and control of noxious weeds and weeds of concern on all areas of surface disturbance associated with this project (well locations, roads, water management facilities, etc.) Use of pesticides shall comply with the applicable Federal and State laws. Pesticides shall be used only in accordance with their registered uses and within limitations imposed by the Secretary of Interior. Prior to the use of pesticides on public land, the holder shall obtain from the BLM authorized officer written approval of a plan showing the type and quantity of material to be used, pest(s) to be controlled, method of application, location of storage and disposal of containers, and any other information deemed necessary by the authorized officer to such use.
- 6. Sewage shall be placed in a self-contained, chemically treated porta-potty on location.
- 7. The operator and their contractors shall ensure that all use, production, storage, transport and disposal of hazardous and extremely hazardous materials associated with the drilling, completion and production of these wells will be in accordance with all applicable existing or hereafter promulgated federal, state and local government rules, regulations and guidelines. All project-related activities involving hazardous materials will be conducted in a manner to minimize potential environmental impacts. In accordance with OSHA requirements, a file will be maintained onsite containing current Material Safety

Data Sheets (MSDS) for all chemicals, compounds and/or substances which are used in the course of construction, drilling, completion and production operations.

- 8. Produced fluids shall be put in test tanks on location during completion work. Produced water will be put in the reserve pit during completion work per Onshore Order #7.
- 9. The only fluids/waste materials which are authorized to go into the reserve pit are RCRA exempt exploration and production wastes. These include:
  - drilling muds & cuttings
  - rigwash
  - excess cement and certain completion & stimulation fluids defined by EPA as exempt

It does not include drilling rig waste, such as:

- spent hydraulic fluids
- used engine oil
- used oil filter
- empty cement, drilling mud, or other product sacks
- empty paint, pipe dope, chemical or other product containers
- excess chemicals or chemical rinsate

Any evidence of non-exempt wastes being put into the reserve pit may result in the BLM Authorized Officer requiring specific testing and closure requirements.

10. If this well is drilled during the fire season (June-October), the operator shall institute all necessary precautions to ensure that fire hazard is minimized, including but not limited to mowing vegetation on the access route(s) and well location(s), keeping fire fighting equipment readily available when drilling, etc.

#### D. Dry Hole/Reclamation

- 1. All disturbed lands associated with this project, including the pipelines, access roads, water management facilities, etc will be expediently reclaimed and reseeded in accordance with the surface use plan and any pertinent site-specific COAs.
- 2. Disturbed lands will be re-contoured back to conform with existing undisturbed topography. No depressions will be left that trap water or form ponds.
- 3. Before the location has been reshaped and prior to redistributing the topsoil, the operator will rip or scarify the drilling platform and access road on the contour, to a depth of at least 12 inches. The rippers are to be no farther than 24 inches apart.
- 4. Distribute the topsoil evenly over the entire location and other disturbed areas. Prepare the seedbed by disking to a depth of 4-to-6 inches following the contour.
- 5. Phased reclamation plans will be submitted to BLM for approval prior to individual POD facility abandonment via a Notice of Intent (NOI) Sundry Notice. Individual facilities, such as well locations, pipelines, discharge points, impoundments, etc. need to be addressed in these plans as they are no longer needed. Individual items that will need to be addressed in reclamation plans include:
  - Pit closure (Close ASAP after suitably dry, but no later than 90 days from time of drilling unless an extension is given by BLM Authorized Officer.) BLM may require closure prior to 90 days in some cases due to land use or environmental concerns.
  - Configuration of reshaped topography, drainage systems, and other surface manipulations
  - Waste disposal

- Revegetation methods, including specific seed mix (pounds pure live seed/acre) and soil treatments (seedbed preparation, fertilization, mulching, etc.). On private surface, the landowner should be consulted for the specific seed mix.
- Other practices that will be used to reclaim and stabilize all disturbed areas, such as water bars, erosion fabric, hydro-mulching, etc.
- An estimate of the timetables for beginning and completing various reclamation operations relative to weather and local land uses.
- Methods and measures that will be used to control noxious weeds, addressing both ingress and egress to the individual well or POD.
- Decommissioning/removal of all surface facilities
- 6. BLM will not release the performance bond until all disturbed areas associated with the APD/POD have been successfully revegetated (evaluation will be made after the second complete growing season) and has met all other reclamation goals of the surface owner and surface management agency.
- 7. A Notice of Intent to Abandon and a Subsequent Report of Abandonment must be submitted for abandonment approval.
- 8. For performance bond release approval, a Final Abandonment Notice (with a surface owner release letter on split-estate) must be submitted prior to a final abandonment evaluation by BLM.
- 9. Soil fertility testing and the addition of soil amendments may be required to stabilize some disturbed lands.
- 10. Any mulch utilized for reclamation needs to be certified weed free.
- 11. Waterbars are to be constructed at least one (1) foot deep, on the contour with approximately two (2) feet of drop per 100 feet of waterbar to ensure drainage, and extended into established vegetation. All waterbars are to be constructed with the berm on the downhill side to prevent the soft material from silting in the trench. The initial waterbar should be constructed at the top of the backslope. Subsequent waterbars should follow the following general spacing guidelines:

Slope	Spacing Interval				
(percent)	(feet)				
<b>≤</b> 2	200				
2 - 4	100				
4 - 5	75				
≥ 5	50				

#### E. Producing Well

- 1. Reclaim those areas not required for production as soon as possible. The fluids and mud must be dry in the reserve pit before re-contouring pit area. The operator will be responsible for re-contouring and reseeding of any subsidence areas that develop from closing a pit before it is completely dry.
- 2. Reduce the backslope to 2:1 and the foreslope to 3:1, unless otherwise directed by the BLM Authorized Officer. Reduce slopes by pulling fill material up from foreslope into the toe of cut slopes.

- 3. Production facilities (including dikes) must be placed on the cut portion of the location and a minimum of 15 feet from the toe of the back cut unless otherwise approved by the BLM Authorized Officer.
- 4. Any spilled or leaked oil, produced water or treatment chemicals must be reported in accordance with NTL-3A and immediately cleaned up in accordance with BLM requirements. This includes clean-up and proper disposition of soils contaminated as a result of such spills/leaks.
- 5. Distribute stockpiled topsoil evenly over those areas not required for production and reseed as recommended.
- 6. Upgrade and maintain access roads and drainage control (e.g., culverts, drainage dips, ditching, crowning, surfacing, etc.) as necessary and as directed by the BLM Authorized Officer to prevent soil erosion and accommodate safe, environmentally-sound access.
- 7. Prior to construction of production facilities not specifically addressed in the APD, the operator shall submit a Sundry Notice to the BLM Authorized Officer for approval.
- 8. If not already required prior to constructing and drilling the well location, the operator shall immediately upgrade the entire access road to BLM standards (including topsoiling, crowning, ditching, drainage culverts, surfacing, etc.) to ensure safe, environmentally-sound, year-round access. Waterbars shall be installed on all reclaimed pipeline corridors per the guidelines in D #11.

#### Seed Mix A1

# Temporary Disturbance (for berms, topsoil piles, pad margins)

ruides Lus	orbes Lbs	s Lbs	Forbes
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Yellow Sweetclover	2.0 lbs/acre
Ladak Alfalfa	2.0 lbs/acre
Cicer Milkvetch	1.0 lbs/acre
Palmer Penstemon	0.5 lbs/acre

## **Grasses Lbs**

Crested Wheatgrass	2.0 lbs/acre
Great Basin Wildrye	2.0 lbs/acre
Intermediate Wheatgrass	2.0 lbs/acre

#### **Total**

11.5 lbs/acre

1 Seed mix A is designed for rapid establishment, soil holding ability, and nitrogen fixing capability. C-4 EA, West Tavaputs Plateau Drilling Program

#### Seed Mix B

Final Reclamation

(for buried pipe lines, abandoned pads, road, etc.)

## Forbes Lbs

Palmer Penstemon	0.5 lbs/acre
Golden Cryptantha	0.25 lbs/acre
Utah Sweetvetch	0.5 lbs/acre
Yellow Sweetclover <sup>1</sup>	2.0 lbs/acre
Lewis Flax	1.0 lbs/acre

#### **Grasses Lbs**

Indian Ricegrass	1.0 lbs/acre
Needle & Thread Grass	1.0 lbs/acre
Intermediate Wheatgrass	2.0 lbs/acre
Blue Grama	0.5 lbs/acre
Galletta	0.5 lbs/acre
Great Basin Wildrye	2.0 lbs/acre

## Woody Plants Lbs

Fourwing Saltbush	2.0 lbs/acre
Winterfat	0.5 lbs/acre
Wyoming Big Sage brush	0.25 lbs/acre
Utah Serviceberry	1.0 lbs/acre
Blue Elderberry (Raw Seeds)	1.0 lbs/acre

#### Total 16.0 lbs/acre

1 Yellow Sweetclover is planted as a nurse crop to provide solar protection, soil binding and nitrogen fixing. It will normally be crowded out in 2 to 3 years.

# TMC 1: Browse Hand Planting Tubeling Mixtures

One of the two browse species lists (checked below) are to be hand planted at the prescribed application rate and according to the following prescribed methods on areas that are undergoing long term reclamation. The would include all pipeline corridors, berm around edge of drill pads, miscellaneous disturbed areas associated with construction such as staging areas for equipment, sidecast on road cuts, along side upgraded or new roads up to and including borrow ditch and in the termination of redundant access roads being closed. This planting shall be completed in the first planting window following completion of construction and on all other disturbed areas upon final reclamation.

#### **Planting Methods:**

Planting shall be accomplished using a labor force with specific experience in landscape restoration, hand planting methods and handling and care of browse tubling and or bareroot stock plants.

Browse plants to be utilized can be bareroot stock or tubling stock plants of 1 year old age class or greater.

Browse seedling protectors will be used to provide protection from browsing ungulates for two years. Seedling protectors will be of an open mesh rigid design that will break down when exposed to sunlight and that measures a minimum of 12 inches in length and 4 inches in diameter.

Planting shall be completed in the spring (March 1-April 1) and or fall (November 1-December 1) planting windows.

Browse plants shall be stored and handled in such a manner as to maintain viability, according to the type of browse stock being used.

Planting Species and Application Rate: [ ] Sagebrush-Grass [X] Pinyon-Juniper

	Plants Per Acre			
	Sagebrush-	Pinyon-		
Species	Grass	Juniper		
Wyoming Sagebrush (Gordon Creek)	100	50		
Fourwing Saltbush (Utah seed source collected at or above 5,000 feet elevation)	100	50		
True Mountain Mahogany (Utah seed source)	0	50		
Antelope Bitterbrush (Utah seed source)	0	50		
TOTAL	200	200		
Suitable Substitutions:				
Utah Serviceberry	No	50		
Winterfat	100	No		

Table 2.3 Lease Numbers, Oil and Gas Units, Federal ROW Requirements, and Lease Stipulations for State and Federal Wells Proposed by BBC.

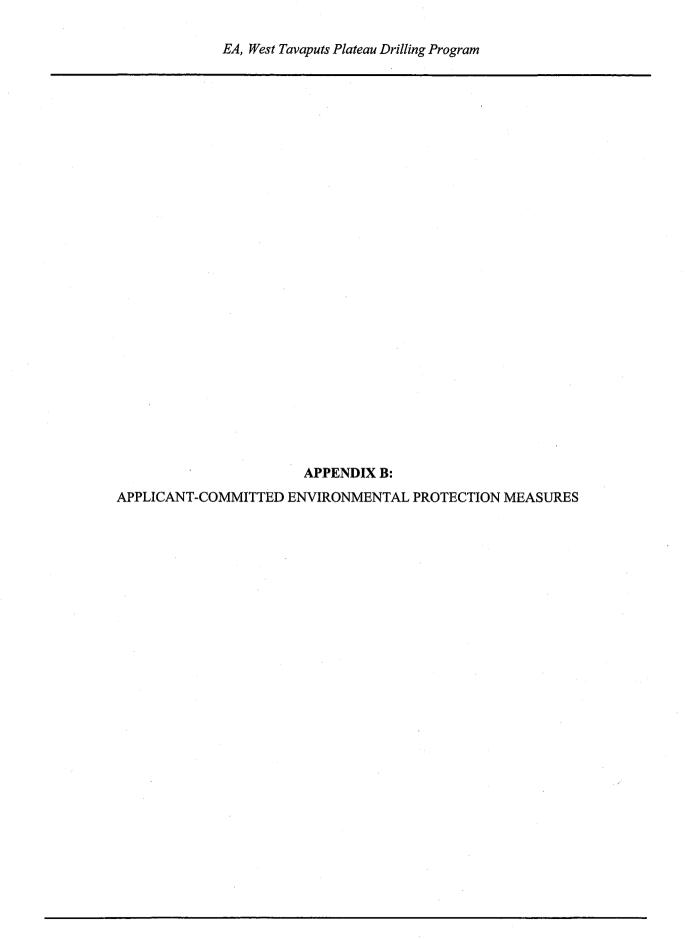
Location/Well Number	Federal Lease Number and Stipulations	Unit Name	Federal ROW Needs
Federal Wells			
7-25	UTU-59970	Prickly Pear Unit	Lower Flat Iron Road
16-34	UTU-73671	Prickly Pear Unit	Lower Flat Iron Road
27-3	UTU-73670 1,2,3	Prickly Pear Unit	None
21-2	UTU-73670 1,2,3	Prickly Pear Unit	None
13-4	UTU-74385	Prickly Pear Unit	None
5-13	UTU-73665	Prickly Pear Unit	None
24-12	UTU-77513 1,2,3	Prickly Pear Unit	None
10-4	UTU-74386 1,2,3,4	Prickly Pear Unit	None
15-19	UTU-66801 1,2,3	Jack Canyon Unit	None
Existing Pads			
UT-10	UTU-66801 1,2,3	Jack Canyon Unit	None
РРН-8	UTU-66801 1,2,3	Jack Canyon Unit	None
PP-11	UTU-66801 1,2,3	Jack Canyon Unit	None
State Wells			
Section 2, T13S, R15E	NA	Prickly Pear Unit	Lower Flat Iron Road
Section 36, T12S, R15E	NA	Prickly Pear Unit	Lower Flat Iron Road
Section 32, T12S, R16E	NA	Jack Canyon Unit	Cottonwood Canyon Road
Section 2, T13S, R16E	NA	None	Peters Point Road Extensio

No occupancy or other surface disturbance will be allowed within 330 feet of the centerline or within the 100-year recurrence interval floodplain, whichever is greater, of the perennial streams or within 660 feet of springs, whether flowing or not. This distance may be modified when specifically approved in writing by the authorized officer of the BLM.

In order to minimize watershed damage, exploration drilling and other development activity will be allowed only during the period from May 1 to October 31. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the BLM.

Construction of access roads and drill pads on slopes in excess of 30 percent will require special design standards to minimize watershed damage. Drilling operations and any associated construction activities on slopes in excess of 50 percent may require directional drilling to prevent damage to the watershed. Exceptions to the limitations may be specifically approved in writing by the authorized officer of the BLM.

Raptor surveys will be required whenever surface disturbance and/or occupancy proposed in association with oil/gas exploration occur within a known nesting complex for raptors located in the NWNW, Sec. 10, T12S, R14E. Field surveys will be conducted by the lessee/operator as determined by the AO of the BLM. When surveys are required of the lessee/operator, the consultant hired must be found acceptable to the AO prior to the field survey being conducted. Based on the result of the field survey, the AO will determine appropriate buffer zones.



## 1.0 INTRODUCTION

Appendix B is part of BBC's Proposed Action for the WTPDP as described in Chapter 2.0, and BBC will comply with the standards, procedures, and requirements contained in Appendix B when implementing the Alternatives unless otherwise provided for by the BLM Authorized Officer (AO). Appendix B describes standard practices utilized to mitigate adverse effects caused by surface-disturbing activities.

#### 2.0 STANDARD PRACTICES

The following BMPs/Applicant-Committed Protection Measures (ACEPM) will be applied to all federal lands within the WTPPA by BBC to minimize impacts to the environment. Exception, modification, or waiver of a mitigation requirement may be granted if a thorough analysis by BLM determines that the resource(s) for which the measure was developed will not be impacted by the project activity. Further site-specific mitigation measures may be identified during the application for permit to drill (APD) and/or right-of-way (ROW) application review processes.

#### 2.1 PRECONSTRUCTION PLANNING AND DESIGN MEASURES

- 1. BBC and/or their contractors and subcontractors will conduct all phases of project implementation, including well location, road and pipeline construction, drilling and completion operations, maintenance, reclamation, and abandonment in full compliance with all applicable federal, state, and local laws and regulations and within the guidelines specified in approved APDs and ROW permits. BBC will be held fully accountable for their contractor's and subcontractor's compliance with the requirements of the approved permit and/or plan.
- 2. Implementation of site-specific activities/actions will be contingent on BLM determining that the activity/action complies with the following plans:
  - Surface Use Plan and/or Plan of Development; and
  - Site-specific APD plans/reports (e.g., road and wellpad design plans, cultural clearance, special status plant species clearance, etc.).

The above plans may be prepared by the Companies for the project area or submitted incrementally with each APD, ROW application, or Sundry Notice (SN).

#### 2.2 ROADS

- 1. BBC will construct roads on private surface in a safe and prudent manner to the specifications of landowners.
- 2. Roads on federal surface will be constructed as described in BLM Manual 9113. Where necessary, running surfaces of the roads will be graveled if the base does not already contain sufficient aggregate.
- 3. Existing roads will be used when the alignment is acceptable for the proposed use. Generally, roads will be required to follow natural contours; provide visual screening by constructing curves, etc.; and be reclaimed to BLM standards.
- 4. To control or reduce sediment from roads, guidance involving proper road placement and buffer strips to stream channels, graveling, proper drainage, seasonal closure, and in some cases, redesign or closure of old roads will be developed when necessary. Construction may also be prohibited during periods when soil material is saturated, frozen, or when watershed damage is likely to occur.
- 5. Available topsoil will be stripped from all road corridors prior to commencement of construction activities and will be redistributed and reseeded on backslope areas of the borrow ditch after completion of road construction activities. Borrow ditches will be reseeded in the first appropriate season after initial disturbance.

- 6. On newly constructed roads and permanent roads, the placement of topsoil, seeding, and stabilization will be required on all cut and fill slopes unless conditions prohibit this (e.g., rock). No unnecessary side-casting of material (e.g., maintenance) on steep slopes will be allowed.
- 7. Reclamation of abandoned roads will include requirements for reshaping, recontouring, resurfacing with topsoil, installation of water bars, and seeding on the contour. Road beds, wellpads, and other compacted areas will be ripped to a depth of 1.0 foot on 1.5 feet centers to reduce compaction prior to spreading the topsoil across the disturbed area. Stripped vegetation will be spread over the disturbance for nutrient recycling, where practical. Fertilization or fencing of these disturbances will not normally be required. Additional erosion control measures (e.g., fiber matting) and road barriers to discourage travel may be required. Graveled roads, wellpads, and other sites will be stripped of usable gravel and hauled to new construction sites prior to ripping as deemed necessary by the AO. The removal of structures such as bridges, culverts, cattleguards, and signs will usually be required.
- 8. Main artery roads, regardless of the primary user, will be crowned, ditched, drained, and, if deemed appropriate by the AO, surfaced with gravel.
- 9. Unnecessary topographic alterations will be mitigated by avoiding, where possible, steep slopes, rugged topography, and perennial and ephemeral/intermittent drainages, and by minimizing the area disturbed.
- 10. Upon completion of construction and/or production activities, the Companies will restore, to the extent practicable, the topography to near pre-existing contours at well sites, access roads, pipelines, and other facility sites.
- 11. Existing roads will be used to the maximum extent possible and upgraded as necessary.
- 12. BBC will comply with existing federal, state, and county requirements and restrictions to protect road networks and the traveling public.
- 13. Special arrangements will be made with the Utah Department of Transportation to transport oversize loads to the project area. Otherwise, load limits will be observed at all times to prevent damage to existing road surfaces.
- 14. All development activities along approved ROWs will be restricted to areas authorized in the approved ROW.
- 15. Roads and pipelines will be located adjacent to existing linear facilities wherever practical.
- 16. BBC and/or their contractors will post appropriate warning signs and require project vehicles to adhere to appropriate speed limits on project-required roads, as deemed necessary by the AO.
- 16. BBC will be responsible for necessary preventative and corrective road maintenance for the duration of the project. Maintenance responsibilities may include, but are not limited to, blading, gravel surfacing, cleaning ditches and drainage facilities, dust abatement, noxious weed control, or other requirements as directed by the AO.

#### 2.3 WELLPADS AND FACILITIES

- 1. In conformance with Onshore Oil and Gas Order No. 1, BBC will prepare and submit individual comprehensive drill site design plans for BLM approval. These plans will show the drill location layout over the existing topography; dimensions of the location; volumes and cross sections of cut and fill; location and dimensions of reserve pits; existing drainage patterns; and access road egress and ingress. Plans will be submitted and approved prior to initiation of construction.
- 2. No surface disturbance is recommended on slopes in excess of 25% unless erosion controls can be ensured and adequate revegetation is expected. Engineering proposals and revegetation and restoration plans will be required in these areas.
- 3. Reserve pits will be constructed to ensure protection of surface and ground water. The review to determine the need for installation of lining material will be done on a case-by-case basis and consider soil permeability, water quality, and depth to ground water.
- 4. Reserve pit liners will have a mullen burst strength that is equal to or exceeds 300 pounds, a puncture strength that is equal to or exceeds 160 pounds, and grab tensile strengths that are equal to or exceed 150 pounds. There will be verified test results conducted according to ASTM test standards. The liner will be totally resistant to deterioration by hydrocarbons.
- 5. Produced water from oil and gas operations will be disposed of in accordance with the requirements of Onshore Oil and Gas Order #7.
- 6. Pits will be fenced as specified in individual authorizations. Any pit containing harmful fluids will be maintained in a manner that will prevent migratory bird mortality.
- 7. Disturbances will be managed/reclaimed for zero runoff from the wellpad or other facility until the area is stabilized. All excavations and pits will be closed by backfilling and contouring to conform to surrounding terrain. On wellpads and other facilities, the surface use plan will include objectives for successful reclamation including soil stabilization, plant community composition, and desired vegetation density and diversity.
- 8. On producing wells, BBC will reduce slopes to original contours (not to exceed 3:1 slopes). Areas not used for production purposes will be backfilled and blended into the surrounding terrain, reseeded, and erosion control measures installed. Erosion control measures will be required after slope reduction. Mulching, erosion control measures, and fertilization may be required to achieve acceptable stabilization.
- 9. Abandoned sites will be satisfactorily rehabilitated in accordance with the approved APD.

#### 2.4 PIPELINES

- 1. Pipeline construction methods and practices will be completed in such a manner so as to obtain good reclamation and the re-establishment of the native plant community.
- 2. On ditches exceeding 24 inches in width, 6 to 12 inches of surface soil will be salvaged on the entire right-of-way, where practicable. When pipelines are buried, there will be at least 30 inches of backfill on top of the pipe. Backfill will not extend above the original ground level after the fill has settled. Guides for construction and water bar placement found in "Surface Operating Standards for Oil and

Gas Exploration and Development" (BLM and USFS 1989) will be followed. Bladed surface materials will be re-spread upon the cleared route once construction is completed. Disturbed areas that have been reclaimed will be fenced when the route is near livestock watering areas at the discretion of the AO.

- 3. Pipeline ROWs will be located to minimize soil disturbance to the greatest extent practicable. Mitigation will include locating pipeline ROWs adjacent to access roads to minimize ROW disturbance widths, or routing pipeline ROWs directly to minimize disturbance lengths.
- 4. Existing crowned and ditched roads will be used for access where possible to minimize surface disturbances. Clearing of pipeline ROWs will be accomplished with the least degree of disturbance to topsoil. Where topsoil removal is necessary, it will be stockpiled (windrowed) and re-spread over the disturbed area after construction and backfilling are completed. Vegetation removed from the ROW will also be re-spread to provide protection, nutrient recycling, and a seed source.
- 5. Temporary disturbances which do not require major excavation (e.g., small pipelines) may be stripped of vegetation to ground level using mechanical treatment, leaving topsoil intact and root masses relatively undisturbed.
- 6. To promote soil stability, backfill over the trench will be compacted so as not to extend above the original ground level after the fill has settled. Wheel or other methods of compacting the pipeline trench backfill will occur at two levels to reduce trench settling and water channeling—once after 3 feet of fill has been replaced and once within 6-12 inches of the surface. Water bars, mulching, and terracing will be installed, as needed, to minimize erosion. Instream protection structures (e.g., drop structures) in drainages crossed by a pipeline will be installed at the discretion of the AO to prevent erosion.
- 7. BBC will adhere to the following procedures regarding the installation of pipelines during periods when the earth is frozen.
  - The BLM Price Field Office will be contacted at least 10 days prior to anticipated start of project. The project will not proceed until such time as authorization from BLM has been received by the Companies.
  - A BLM representative will be on the ground at the beginning of construction.
  - Snow, if present, will be removed utilizing a motor grader.
  - Vegetation will be scalped and windrowed to one side of the right-of-way.
  - A wheel trencher will be used to remove approximately 6-8 inches of topsoil from the top of the pipeline ditch and windrow it to one side.
  - A trench approximately 4 feet deep will be dug using a wheel trencher and the soil will be stockpiled to one side, making sure the top soil or spoil do not get mixed together.
  - The pipeline will be installed, the trench backfilled, and the spoil compacted in the trench.
  - Stockpiled topsoil will be placed in the trench and compacted.
  - Scalped vegetation back will be placed back on right-of-way using a motor grader.
  - The entire right-of-way will be reseeded as normal in the spring after the thaw.

These procedures will be incorporated in every Plan of Development where construction in frozen earth is anticipated.

#### 2.5 AIR QUALITY

- 1. BBC will comply with all applicable local, state, and federal air quality laws, statutes, regulations, standards, and implementation plans.
- 2. BBC will obtain all necessary air quality permits from UDAQ to construct, test, and operate facilities.
- 3. All internal combustion equipment will be kept in good working order.
- 4. The Companies will use water at construction sites, as necessary, to abate fugitive dust.
- 5. The Companies will not allow any open burning of garbage or refuse at well sites or other facilities.

#### 2.6 VEGETATION

- 1. Removal and disturbance of vegetation will be kept to a minimum through construction site management (e.g., using previously disturbed areas and existing easements, limiting equipment/materials storage yard and staging area size, etc.).
- 2. Wellpads and associated roads and pipelines will be located to avoid or minimize impacts in areas of high value (e.g., sensitive species habitats, wetland/riparian areas).

#### 2.7 SOILS

- 1. Surface-disturbing activities will be examined on a site-specific basis, evaluating the potential for soil loss and the compatibility of soil properties with project design. Stipulations and mitigating measures will be developed on a case-by-case basis to ensure soil conservation and practical management.
- 2. BBC will restrict construction activities during periods when soils are saturated and excessive rutting (>4 inches with multiple passes) would occur.
- 3. Salvage and subsequent replacement of topsoil will occur for surface-disturbing activities wherever specified by the AO.
- 4. Before a surface-disturbing activity is undertaken, topsoil depth will be determined and the amount of topsoil to be removed, along with topsoil placement areas, will be specified in the authorization. The uniform distribution of topsoil over the area to be reclaimed will occur unless conditions warrant a varying depth. On large surface-disturbing projects topsoil will be stockpiled and seeded to reduce erosion. Where feasible, topsoil stockpiles will be designed to maximize surface area to reduce impacts to soil microorganisms. Areas used for spoil storage will be stripped of topsoil before spoil placement, and the replacement of topsoil after spoil removal will be required.
- 5. BBC will avoid adverse impacts to soils by:
  - minimizing the area of disturbance;
  - avoiding construction with frozen soil materials to the extent practicable;
  - avoiding areas with high erosion potential (e.g., unstable soil, dunal areas, slopes greater than 25%, floodplains), where practicable;
  - salvaging and selectively handling topsoil from disturbed areas;
  - adequately protecting stockpiled topsoil and replacing it on the surface during reclamation;
  - leaving the soil intact (scalping only) during pipeline construction, where practicable;

- using appropriate erosion and sedimentation control techniques including, but not limited to, diversion terraces, riprap, and matting;
- promptly revegetating disturbed areas using adapted species;
- applying temporary erosion control measures such as temporary vegetation cover, application of mulch, netting, or soil stabilizers; and/or
- constructing barriers, as appropriate, to minimize wind and water erosion and sedimentation prior to vegetation establishment.
- 6. Appropriate erosion control and revegetation measures will be employed. Grading and landscaping will be used to minimize slopes, and water bars will be installed on disturbed slopes in areas with unstable soils where seeding alone may not adequately control erosion. Erosion control efforts will be monitored by the Companies and necessary modifications made to control erosion.
- 7. Sufficient topsoil or other suitable material to facilitate revegetation will be segregated from subsoils during all construction operations requiring excavation and will be returned to the surface upon completion of operations. Soils compacted during construction will be ripped and tilled as necessary prior to reseeding. Cut and fill sections on all roads and along pipelines will be revegetated with native species.
- 8. Any accidental soil contamination by spills of petroleum products or other hazardous materials will be cleaned up by the Companies and the soil disposed of or rehabilitated according to applicable rules.
- 9. BBC will restrict off-road vehicle (ORV) activity by employees and contract workers to the immediate area of authorized activity or existing roads and trails.

#### 2.8 RECLAMATION

- 1. BBC's reclamation goals will emphasize: 1) protection of existing native vegetation; 2) minimal disturbance of the existing environment; 3) soil stabilization through establishment of ground cover; and 4) establishment of native vegetation consistent with land use planning.
- 2. All reclamation will be accomplished as soon as possible after the disturbance occurs with efforts continuing until a satisfactory revegetation cover is established.
- 3. Seed mixtures for reclaimed areas will be site-specific, composed of native species, and will include species promoting soil stability. A pre-disturbance species composition list will be developed if the site includes several different plant communities. Livestock palatability and wildlife habitat needs will be given consideration during seed mix formulation. BLM Manual 1745, Introduction, Transplant, Augmentation, and Reestablishment of Fish, Wildlife, and Plants, and Executive Order No. 11987, Exotic Organisms, will be used as guidance.
- 4. Interseeding, secondary seeding, or staggered seeding may be used to accomplish revegetation objectives. During rehabilitation of areas in important wildlife habitat, provision will be made for the establishment of native browse and forb species. Follow-up seeding or corrective erosion control measures will occur on areas where initial reclamation efforts are unsuccessful.
- 5. Any mulch used by BBC will be weed free and free from mold, fungi, or noxious weed seeds. Mulch may include native hay, small grain straw, wood fiber, live mulch, cotton, jute, synthetic netting, and

rock. Straw mulch will contain fibers long enough to facilitate crimping and provide the greatest cover.

- 6. BBC will be responsible for the control of all noxious weed infestations on disturbed surfaces. Aerial application of chemicals will be prohibited within 0.25 mile of special status plant locations, and hand application will be prohibited within 500 feet. Herbicide application will be monitored by the AO.
- 7. Recontouring and seedbed preparation will occur immediately prior to reseeding on the unused portion of wellpads, road ROWs, and entire pipeline ROWs outside of road ROWs. In the event of uneconomical wells, BBC will initiate reclamation of the entire wellpads, access road, and adjacent disturbed habitat as soon as possible. BBC assumes the responsibility to see that their exploration, development, production, and construction operations are conducted in a manner which results in the proper reclamation of disturbed lands. BBC will monitor reclamation to determine and ensure successful establishment of vegetation. No consent to termination of any bond will be given by the AO until all the terms and conditions of the approved permit(s) have been met.
- 8. Proper erosion and sediment control structures and techniques will be incorporated by the Companies into the design of wellpads, roads, pipelines, and other facilities. Revegetation using a BLM-approved, locally adapted seed mixture containing native grasses, forbs, and shrubs will begin in the first appropriate season following disturbance. Vegetation removed will be replaced with plants of equal forage value and growth form using procedures that include:
  - fall reseeding (September 15 to freeze-up), where feasible;
  - spring reseeding (April 30 May 31) if fall seeding is not feasible;
  - · deep ripping of compacted soils prior to reseeding;
  - surface pitting/roughening prior to reseeding;
  - utilization of native cool season grasses, forbs, and shrubs in the seed mix;
  - interseeding shrubs into an established stand of grasses and forbs at least one year after seeding;
  - appropriate, approved weed control techniques;
  - · broadcast or drill seeding, depending on site conditions; and
  - fencing of certain sensitive reclamation sites (e.g., riparian areas, steep slopes, and areas within 0.5 mile of livestock watering facilities) as determined necessary through monitoring.
- 9. BBC will monitor noxious weed occurrence on the project area and implement a noxious weed control program in cooperation with BLM. Weed-free certification by county extension agents will be required for grain or straw used for mulching revegetated areas.

#### 2.9 CANDIDATE PLANTS/SPECIAL STATUS PLANTS

- 1. Herbicide applications will be kept at least 500 feet from known special status plant species populations or other distances deemed safe by the AO.
- 2. Wellpads and associated roads and pipelines will be located to avoid or minimize impacts to areas of high value (e.g., special status plant species habitats, wetland/riparian areas).

#### 2.10 WATERSHEDS

1. Crossings of ephemeral, intermittent, and perennial streams associated with road and utility line construction will generally be restricted until normal flows are established after spring runoff.

#### 2.11 GEOLOGICAL/PALEONTOLOGICAL RESOURCES

- 1. Wells, pipelines, and ancillary facilities will be designed and constructed such that they will not be damaged by moderate earthquakes. Any facilities defined as critical according to the Uniform Building Code will be constructed in accordance with applicable Uniform Building Code Standards for Seismic Risk Zone 2B.
- 2. If paleontological resources are uncovered during surface-disturbing activities, BBC will suspend operations at the site that will further disturb such materials and immediately contact the AO, who will arrange for a determination of significance, and, if necessary, recommend a recovery or avoidance plan.

#### 2.12 CULTURAL/HISTORICAL RESOURCES

- 1. BBC will follow the cultural resources and recovery plan for the project.
- 2. If cultural resources are located within frozen soils or sediments that preclude the possibility of adequately recording or evaluating the find, construction work will cease and the site will be protected for the duration of frozen soil conditions. Recordation, evaluation and recommendations concerning further management will be made to the AO following natural thaw. The AO will consult with the affected parties and construction work will resume once management of the threatened site has been finalized and the Notice to Proceed has been issued.
- 3. BBC will inform their employees, contractors and subcontractors about relevant federal regulations intended to protect archaeological and cultural resources. All personnel will be informed that collecting artifacts, including arrowheads, is a violation of federal law and that employees engaged in this activity may be subject to disciplinary action.

#### 2.13 WATER RESOURCES

- 1. BBC will maintain a complete copy of the SPCC Plan at each facility if the facility is normally attended at least 8 hours per day, or at the nearest field office if the facility is not so attended (40 CFR 112.3(e)).
- 2. BBC will implement and adhere to SPCC Plans in a manner such that any spill or accidental discharge of oil will be remediated. An orientation will be conducted by the Companies to ensure that project personnel are aware of the potential impacts that can result from accidental spills, as well as the appropriate recourse if a spill does occur. Where applicable and/or required by law, streams at pipeline crossings will be protected from contamination by pipeline shutoff valves or other systems capable of minimizing accidental discharge.
- 3. If reserve pit leakage is detected, operations at the site will be curtailed, as directed by the BLM, until the leakage is corrected.
- 4. BBC will case and cement all gas wells to protect subsurface mineral and freshwater zones. Unproductive wells and wells that have completed their intended purpose will be properly abandoned and plugged using procedures identified by BLM (federal mineral estate) and/or WOGCC (state and fee mineral estate).

- 5. All water used in association with this project will be obtained from sources previously approved by the Utah State Engineer's Office.
- 6. Erosion-prone or high salinity areas will be avoided where practicable. Necessary construction in these areas will be timed to avoid periods of greatest runoff.
- 7. BBC will incorporate proper containment of condensate and produced water in tanks and drilling fluids in reserve pits, and will locate staging areas for storage of equipment away from drainages to prevent contaminants from entering surface waters.
- 8. Prudent use of erosion control measures, including diversion terraces, riprap, matting, temporary sediment traps, and water bars will be employed by the Companies as necessary. These erosion control measures will be used as appropriate to control surface runoff generated at wellpads. The type and location of sediment control structures, including construction methods, will be described in APD and ROW plans. If necessary, BBC may treat diverted water in detention ponds prior to release to meet applicable state or federal standards.
- 9. BBC will construct channel crossings by pipelines so that the pipe is buried at least 3 feet below the channel bottom.
- 10. Streams/channels crossed by roads will have culverts installed at all appropriate locations as specified in the BLM Manual 9112-Bridges and Major Culverts and Manual 9113-Roads. Streams will be crossed perpendicular to flow, where possible, and all stream crossing structures will be designed to carry the 25-year discharge event or other capacities as directed by the AO.
- 11. BBC will reshape disturbed channel beds to their approximate original configuration.
- 12. The disposal of all hydrostatic test water will be done in conformance with BLM Onshore Oil and Gas Order No. 7. BBC will comply with state and federal regulations for water discharged into an established drainage channel. The rate of discharge will not exceed the capacity of the channel to convey the increased flow. Waters that do not meet applicable state or federal standards will be evaporated, treated, or disposed of at an approved disposal facility.
- 13. BBC will prepare Storm Water Pollution Prevention Plans (SWPPPs) as required by WDEQ National Pollution Discharge Elimination System (NPDES) permit requirements on individual disturbances that exceed 5 acres in size or as required by future changes in regulations.
- 14. Any disturbances to wetlands and/or waters of the U.S. will be coordinated with the COE, and 404 permits will be secured as necessary prior to disturbance.
- 15. Where disturbance of wetlands, riparian areas, streams, or ephemeral/intermittent stream channels cannot be avoided, COE Section 404 permits will be obtained by BBC as required, and, in addition to applicable above-listed measures, the following measures will be applied where appropriate:
  - wetland areas will be crossed during dry conditions (i.e., late summer, fall, or dry winters);
  - streams, wetlands, and riparian areas disturbed during project construction will be restored to as near re-project conditions as practical and, if impermeable soils contributed to wetland formation, soils will be compacted to reestablish impermeability;
  - wetland topsoil will be selectively handled;
  - disturbed areas will be recontoured and BLM-approved species will be used for reclamation; and

 reclamation activities will begin on disturbed wetlands immediately after completion of project activities.

#### **2.14 NOISE**

1. All engines required for project activities will be properly muffled and maintained in accordance with state and federal laws.

## 2.15 WILDLIFE, FISHERIES, AND THREATENED AND ENDANGERED (T&E) SPECIES

- 1. To minimize wildlife mortality due to vehicle collisions, BBC will advise project personnel regarding appropriate speed limits in the project area. Roads no longer required for operations will be reclaimed as soon as possible. Potential increases in poaching will be minimized through employee and contractor education regarding wildlife laws. If wildlife law violations are discovered, the offending employee will be subject to disciplinary action by BBC.
- 2. BBC will protect (e.g., fence or net) reserve, workover, and production pits potentially hazardous to prohibit wildlife access as directed by BLM.
- 3. BBC will utilize wildlife-proof fencing on reclaimed areas in accordance with standards specified in BLM Handbook 1741-1, *Fencing*, if it is determined that wildlife are interfering with successful reestablishment of vegetation.
- 4. Consultation and coordination with USFWS and UDWR will be conducted for all mitigation activities relating to raptors and T&E species and their habitats, and all permits required for movement, removal, and/or establishment of raptor nests will be obtained.
- 5. BBC will adhere to all survey, mitigation, and monitoring requirements identified in the Biological Assessment prepared for this project.

#### 2.16 LIVESTOCK/GRAZING MANAGEMENT

- 1. BBC will reclaim nonessential areas disturbed during construction activities in the first appropriate season after well completion.
- 2. Nonessential areas include portions of the wellpads not needed for production operations, the borrow ditch and outslope portions of new road ROWs, entire pipeline ROWs outside of road ROWs, and all roads and associated disturbed areas at nonproductive wells.
- 3. BBC will repair or replace fences, cattleguards, gates, drift fences, and natural barriers to current BLM standards. Cattleguards will be used instead of gates for livestock control on most road ROWs. Livestock will be protected from pipeline trenches, and livestock access to existing water sources will be maintained.
- 4. BBC will review livestock impacts from roads or disturbance from construction and drilling activities at least annually with livestock permittees and BLM. Appropriate measures will be taken to correct any adverse impacts, should they occur.

#### 2.17 RECREATION

- 1. BBC will instruct employees, contractors, and subcontractors that camp sites on federal lands or at federal recreation sites must not be occupied for more than 14 consecutive days.
- 2. BBC will require that employees, contractors, and subcontractors abide by all state and federal laws and regulations regarding hunting.

#### 2.18 VISUAL RESOURCES

- 1. Pipeline ROWs will be located within existing ROWs whenever possible, and aboveground facilities not requiring safety coloration will be painted with appropriate nonreflective standard environmental colors (Carlsbad Canyon or Desert Brown, or other specified standard environmental colors) as determined by the AO. Topographic screening, vegetation manipulation, project scheduling, and traffic control procedures may all be employed, as practicable, to further reduce visual impacts.
- 2. Within VRM Class II areas, BBC will utilize existing topography to screen roads, pipeline corridors, drill rigs, wells, and production facilities from view where practicable. The Companies will paint all aboveground production facilities with appropriate colors (e.g., Carlsbad Canyon or Desert Brown) to blend with adjacent terrain, except for structures that require safety coloration in accordance with OSHA requirements.

#### 2.19 HEALTH AND SAFETY/HAZARDOUS MATERIALS

- 1. BBC will utilize BLM-approved portable sanitation facilities at drill sites; place warning signs near hazardous areas and along roadways; place dumpsters at each construction site to collect and store garbage and refuse; ensure that all refuse and garbage is transported to a State-approved sanitary landfill for disposal; and institute a Hazard Communication Program for its employees and require subcontractor programs in accordance with OSHA (29 CFR 1910.1200).
- 2. In accordance with 29 CFR 1910.1200, a Material Safety Data Sheet for every chemical or hazardous material brought on-site will be kept on file BBC's field offices.
- 3. Chemicals and hazardous materials will be inventoried and reported by BBC in accordance with the SARA Title III (40 CFR 335). If quantities exceeding 10,000 pounds or the threshold planning quantity are to be produced or stored, BBC will submit appropriate Section 311 and 312 forms at the required times to the State and County Emergency Management Coordinators and the local fire departments.
- 4. BBC will transport and/or dispose of any hazardous wastes, as defined by the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, in accordance with all applicable federal, state, and local regulations.
- 5. BBC commits to the following practices regarding hazardous material containment.
  - All storage tank batteries that contain any oil, glycol, produced water, or other fluid which may
    constitute a hazard to public health or safety will be surrounded by a secondary means of
    containment for the entire contents of the largest single tank in use plus freeboard for
    precipitation, or to contain 110% of the capacity of the largest vessel. The appropriate
    containment and/or diversionary structures or equipment, including walls and floor, will contain

any oil, glycol or produced water and shall be constructed so that any discharge from a primary containment system, such as a tank or pipe, will not drain, infiltrate, or otherwise escape to ground or surface waters before cleanup is completed.

- Treaters, dehydrators and other production facilities that have the potential to leak or spill oil, glycol, produced water, or other fluid which may constitute a hazard to public health or safety, shall be placed on or within appropriate containment and/or diversionary structure to prevent spilled or leaking fluid from reaching ground or surface waters. The appropriate containment and/or diversionary structure will be sufficiently impervious to oil, glycol, produced water, or other fluid and will be installed so that any spill or leakage will not drain, infiltrate, or otherwise escape to ground or surface waters prior to completion of cleanup.
- Notice of any spill or leakage, as defined in BLM NTL 3A, will be immediately reported to the AO by the Companies as well as to such other federal and state officials as required by law. Oral notice will be given as soon as possible, but within no more than 24 hours, and those oral notices will be confirmed in writing within 72 hours of any such occurrence.

## C. REQUIRED APPROVALS, REPORTS AND NOTIFICATIONS

Required verbal notifications are summarized in Table 1, attached.

<u>Building Location</u>- Contact the Price Field Office, Natural Resource Protection Specialist at least 48-hours prior to commencing construction of location.

<u>Spud</u>- Submit written notification (Sundry Notice, Form 3160-5) to the Moab Field Office within 24-hours after spud, regardless of whether using a dry hole digger or big rig.

<u>Daily Drilling Reports</u>- Daily drilling reports that describe the progress and status of the well shall be submitted to the Moab Field Office on at least a weekly basis. This report may be in any format customarily used by the operator.

Oil and Gas Operations Reports (OGORs)- Production from this well shall be reported to Minerals Management Service (MMS) on a monthly basis.

<u>Sundry Notices</u>- Any modification to the proposed drilling program shall be submitted to the Moab Field Office on a Sundry Notice (Form 3160-5). Regulations at 43 CFR 3162.3-2 describe which operations require prior approval, and which require notification.

<u>Drilling Suspensions</u>- Operations authorized by this permit shall not be suspended for more than 30 days without prior approval of the Moab Field Office. All conditions of this approval shall be applicable during any operations conducted with a replacement rig.

<u>Undesirable Events</u>- Spills, blowouts, fires, leaks, accidents, or any other unusual occurrences shall be immediately reported to the BLM in accordance with requirements of NTL-3A.

<u>Cultural Resources</u>- If cultural resources are discovered during construction, immediately notify the Price Field Office, and work that might disturb the cultural resources shall cease.

<u>First Production</u>- A first production conference will be scheduled as soon as the productivity of the well is apparent. This conference should be coordinated through the Price Field Office.

Notify the Moab Field Office when the well is placed into production. Initial notification may be verbal, but must be confirmed in writing within five business days. Please include the date production started, the producing formation and production volumes.

Well Completion Report- Whether the well is completed as a dry hole or as a producer, a *Well Completion or Recompletion Report and Log* (Form 3160-4) shall be submitted to the Moab Field Office within thirty-days after completion of the well. Two copies of all logs, core descriptions, core analyses, well test data, geologic summaries, sample description, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, will be filed with Form 3160-4. When requested, samples (cuttings and/or samples) will be submitted to the Moab Field Office.

<u>Venting/Flaring of Gas</u>- Gas produced from this well may not be vented/flared beyond an initial, authorized test period of 30 days or 50 MMcf, whichever first occurs, without the prior, written approval of the Moab Field Office. Should gas be vented or flared without approval beyond the authorized test period, the well may be ordered to be shut-in until the gas can be captured or until approval to continue the venting/flaring pursuant to NTL-4A is granted. Compensation shall be due for gas that is vented/flared without approval.

<u>Produced Water</u>- An application for approval of a permanent disposal method and location will be submitted to the Moab Field Office for approval pursuant to Onshore Oil and Gas Order No.7.

Off-Lease Measurement, Storage, Commingling- Prior approval must be obtained from the Moab Field Office for off-lease measurement, off-lease storage and/or commingling of production prior to the sales measurement point. The term "commingling" describes both the combining of production from different geologic zones and/or combining production from different leases or agreement areas.

<u>Plugging and Abandonment</u>- If the well is a dry hole, plugging instructions must be obtained from the Moab Field Office prior to initiating plugging operations.

A "Subsequent Report of Abandonment" (Sundry Notice, Form 3160-5) will be filed with the Moab Field Office within thirty-days following completion of the well for abandonment. This report will indicate where plugs were placed and the current status of surface restoration. Upon completion of approved plugging, a regulation marker will be erected in accordance with 43 CFR 3162.6. Final abandonment will not be approved until the surface reclamation work required by the approved APD or approved abandonment notice has been completed to the satisfaction of the Price Field Office or the appropriate surface managing agency.

#### TABLE 1

## **NOTIFICATIONS**

Notify Walton Willis (435-636-3662), Randy Knight (435-636-3615), Don Stephens (435-636-3608) or Nathan Sill (435-636-3668) of the BLM Price Field Office for the following:

- 2 days prior to starting dirt work, construction and reclamation (Stephens or Sill);
- 1 day prior to spud (Stephens or Sill);
- 24 hours prior to reaching the surface casing setting depth (Willis or Knight);
- 24 hours prior to testing BOP equipment (Willis or Knight).

If the person at the above number cannot be reached, notify the BLM Moab Field Office at 435-259-2100.

Well abandonment operations require 24-hour advance notice and prior approval. In the case of newly drilled dry holes, verbal approval can be obtained from:

Eric Jones, Petroleum Engineer

Office: 435-259-2117 Home: 435-259-2214

(Instructions on page 2)

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## **UNITED STATES** DEPARTMENT OF THE INTERIOR **BUREAU OF LAND MANAGEMENT**

# **SUNDRY NOTICES AND REPORTS ON WELLS** Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on page 2.

5. Lease Serial No. UTU-73670

OMB No. 1004-0137 Expires: July 31, 2010

6. If Indian, Allottee or Tribe Name

7. If Unit of CA/Agreement, Name and/or No.

1. Type of Well				Frickly	real Ollit / C	710-013401	
Oil Well Gas We	ell Other			Prickly		ederal 2-28D-12	-15
2. Name of Operator Bill Barrett Corporation				9. API 43-007	Well No. 7-31362		
3a. Address	······································	3b. Phone No. (includ	le area code)	10. Fiel	d and Pool or	Exploratory Area	,
1099 18th Street, Suite 2300, Denver, CO 80202		303-312-8134		Nine N	/lile/Wasatch-	Mesaverde	
4. Location of Well (Footage, Sec., T., R NWNE, 650' FNL, 1412' FEL	.,M., or Survey Description	i)		11. Cou	ntry or Parish,	State	
Sec. 28, T12S-R15E, S.L.B.&M.				Carbo	n County, UT		
12. CHECI	K THE APPROPRIATE BO	DX(ES) TO INDICATE	NATURE OF 1	NOTICE, REP	ORT OR OTH	ER DATA	
TYPE OF SUBMISSION			TYPE O	FACTION			
✓ Notice of Intent	Acidize Alter Casing	Deepen Fracture Tree	at	Production (S Reclamation	tart/Resume)	Water Sh	
Subsequent Report	Casing Repair Change Plans	☐ New Constru☐ Plug and Ab	<del></del>	Recomplete Temporarily	Abandon	Other _	
Final Abandonment Notice	Convert to Injection	Plug Back		Water Dispos	al		
13. Describe Proposed or Completed Op the proposal is to deepen directiona Attach the Bond under which the w following completion of the involve testing has been completed. Final A determined that the site is ready for	lly or recomplete horizonta' ork will be performed or pred operations. If the operat Abandonment Notices must	lly, give subsurface locations on the Bond No. on the ion results in a multiple	ations and meas file with BLM/F completion or r	ared and true v BIA. Required ecompletion in	ertical depths of subsequent re a new interva	of all pertinent m ports must be file l, a Form 3160-4	arkers and zones.  d within 30 days  must be filed once
This sundry is being submitted to recapproved APD drilling program. How	quest a revision to the prover, as an option to the	oduction casing propo e 5 1/2" casing, BBC	osed. BBC still would like to us	proposes to se the following	use the 5 1/2 ng:	", 17#, <b>N</b> -80, L1	Γ&C as noted in the
Size: 4 1/2" Weight: 11.6 lbs/ft Grade: I-100 Finish: LT&C			No.				· <b>**</b>
Cement volumes would be adjusted	accordingly if 4 1/2" casi	ing is utilized. The ca	sing design is	attached.	REC	EIVED	
If you have any questions or need fu	orther information, please			-	APR	2 8 2008	and the state of t
		<b>~</b> :1 /	cepted by an Divisio Gas and I	A111 111.32	DIV. OF OI	L, GAS & MINI	NG
		FOR	RECORI	ONLA			
14. I hereby certify that the foregoing is to Name (Printed/Typed)	ue and correct.			· · · · · · · · · · · · · · · · · · ·	A PART OF THE PART		
Tracey Fallang		Title	Environmenta	al/Regulatory	Analyst		
Signature Malles	Tallanes	Date	04/23/2008				
	THIS SPACE	FOR FEDERAL	OR STATE	OFFICE	USE		
Approved by							
			Title			Date	
Conditions of approval, if any, are attached that the applicant holds legal or equitable tentitle the applicant to conduct operations	itle to those rights in the subj		Office				
Title 18 U.S.C. Section 1001 and Title 43			mowingly and wi	llfully to make	to any departme	ent or agemcy of th	ne United States any false

Well name:

**West Tavaputs General** 

Operator:

**Bill Barrett Corporation** 

String type:

Production

Design parameters:

Minimum design factors:

**Environment:** 

No

Collapse Mud weight:

9.50 ppg

Collapse: Design factor

1.125

H2S considered? Surface temperature:

60.00 °F

Design is based on evacuated pipe.

Bottom hole temperature: Temperature gradient:

200 °F

Minimum section length: Cement top:

1.40 °F/100ft

Burst:

Design factor

1.00

1,500 ft 2,500 ft

**Burst** 

Max anticipated surface

No backup mud specified.

pressure:

2,735 psi

Internal gradient:

0.22 psi/ft

Calculated BHP

4,935 psi

Tension:

1.80 (J)

8 Round STC: 8 Round LTC:

Buttress:

Premium:

1.80 (J) 1.80 (J) 1.80 (J)

Body yield:

1.80 (B)

Tension is based on buoyed weight.

Neutral point:

8,580 ft

Non-directional string.

Run	Segment		Nominal		End	True Vert	Measured	Drift	Internal
Seq	Length	Size	Weight	Grade	Finish	Depth	Depth	Diameter	Capacity
	(ft)	(in)	(lbs/ft)			(ft)	(ft)	(in)	(ft³)
1	10000	4.5	11.60	I-100	LT&C	10000	10000	3.875	231.8
Run	Collapse	Collapse	Collapse	Burst	Burst	Burst	Tension	Tension	Tension
Seq	Load	Strength	Design	Load	Strength	Design	Load	Strength	Design
	(psi)	(psi)	Factor	(psi)	(psi)	Factor	(Kips)	(Kips)	Factor
1	4935	7220	1.46	4935	9720	1.97	100	245	2.45

Prepared Dominic Spencer by: Bill Barrett

Phone: (303) 312-8143 FAX: (303) 312-8195

Date:

7-Apr-08 Denver, Colorado

Remarks:

Collapse is based on a vertical depth of 10000 ft, a mud weight of 9.5 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

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### **UNITED STATES** DEPARTMENT OF THE INTERIOR **BUREAU OF LAND MANAGEMENT**

SUNDRY NOTICES AND REPORTS ON WELLS

	FORM A DMB No. Expires: Ju	PROVE 1004-01: ily 31, 20	37

5. Lease Serial No. UTU-73670

	orm for proposals t Use Form 3160-3 (A		re-enter an		N/A	in the Name		
SUBMIT IN TRIPLICATE – Other instructions on page 2.				<u> </u>	7. If Unit of CA/Agreement, Name and/or No. Prickly Pear Unit / UTU-079487			
1. Type of Well	_				8. Well Name and No			
Oil Well	ell Other	11.,10,.004)	1 118		Prickly Pear Unit F	ederal 2-28D-12-15		
2. Name of Operator Bill Barrett Corporation				9. API Well No. 43-007-31362	9. API Well No. 43-007-31362			
3a. Address 1099 18th Street, Suite 2300, Denver, CO 80202 303-312-81			(include area cod	e)		10. Field and Pool or Exploratory Area Nine Mile/Wasatch-Mesaverde		
4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description) NWNE, 650' FNL, 1412' FEL Sec. 28, T12S-R15E, S.L.B.&M.					11. Country or Parish, State Carbon County, UT			
12. CHEC	K THE APPROPRIATE BO	OX(ES) TO INDI	CATE NATURE	OF NO	TICE, REPORT OR OTH	IER DATA		
TYPE OF SUBMISSION	3 10 10 10 10 10 10 10 10 10 10 10 10 10		TYF	E OF A	CTION			
Notice of Intent  Subsequent Report	Acidize Alter Casing Casing Repair		en are Treat Construction	Re	roduction (Start/Resume) eclamation ecomplete	Water Shut-Off Well Integrity Other Change in wellhead		
	Change Plans	Plug	and Abandon	Т	emporarily Abandon	location		
Final Abandonment Notice	Convert to Injection	Plug I	3ack	Ŭ w	ater Disposal			
determined that the site is ready for This sundry is being submitted as no surface use plan of operations. Fut If you have any questions or need for	otification that the wellhes ure drilling plans, as antic	ipated at this tir	ne, do not indica					
	Accepted by	y the				RECEIVED		
	Utah Divisi					· <del>-</del>		
Oil, Gas and Mining						MAY 2 2 2008		
	For Record	Only			1	DIV. OF OIL, GAS & MINING		
14. I hereby certify that the foregoing is to Name (Printed/Typed) Tracey Fallang	rue and correct.		Title Environn	nental/R	tegulatory Analyst			
Signature Lance	4 Fallan	el	Date 05/19/20	08				
	THIS SPACE	FOR FEDE	RAL OR ST	ATE C	FFICE USE			
Approved by			Title			Date		
Conditions of approval, if any, are attache that the applicant holds legal or equitable	d. Approval of this notice do title to those rights in the subj	es not warrant or o	ertify			1		

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false,

fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

# DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

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FORM APPROVED OMB N 1004-0137 Express of tall N 2010

6. If Indian, Allottee or Tribe Name

# SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill or to re-enter an

abandoned well. Use Form 3160-3 (APD) for such proposals. 7. If Unit of CA/Agreement, Name and/or No. SUBMIT IN TRIPLICATE - Other instructions on page 2. Prickly Pear Unit / UTU-079487 1. Type of Well 8. Well Name and No. Prickly Pear Unit Federal 2-28D-12-15 Oil Well Gas Well Other 2. Name of Operator Bill Barrett Corporation 9. API Well No. 43-007-31362 3a. Address 3b. Phone No. (include area code) 10. Field and Pool or Exploratory Area 1099 18th Street, Suite 2300, Denver, CO 80202 Nine Mile/Wasatch-Mesaverde 303-312-8134 4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description) NWNE, 650' FNL, 1412' FEL 11. Country or Parish, State Sec. 28, T12S-R15E, S.L.B.&M. Carbon County, UT 12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA TYPE OF SUBMISSION TYPE OF ACTION Deepen Acidize Production (Start/Resume) Water Shut-Off Notice of Intent Alter Casing Fracture Treat Reclamation Well Integrity Casing Repair New Construction Other Spud Recomplete ✓ Subsequent Report Change Plans Plug and Abandon Temporarily Abandon Final Abandonment Notice Convert to Injection Plug Back Water Disposal

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

This sundry is being submitted as notification that this well was spud 5/28/08.

fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

If you have any questions or need further information, please contact me at 303-312-8134.

JUN 0 2 2008

DIV, OF OIL, GAS & MINING

The state of the s
vironmental/Regulatory Analyst
Thorntonal/regulatory Analysi
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Date
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ngly and willfully to make to any department or agency of the United States any false
CE

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## **UNITED STATES** DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

	FOR APPA	<b>Y</b>
AMEIR	OMB No. 1044 0137 Expires my 31 010	
UNLIA	Makase Sérial No. UTU-13670	
	6. If Indian, Allottee or Tribe Name	

SUNDRY NOTICES AND REPORTS ON WELLS

	orm for proposals to Use Form 3160-3 (Al	N/A			
SUBMIT IN TRIPLICATE – Other instructions on page 2.			7. If Unit of CA/Agreement, Name and/or No. Prickly Pear Unit / UTU-079487		
1. Type of Well  ☐ Oil Well ☐ Gas Well ☐ Other				8. Well Name and No. Prickly Pear Unit Federal 2-28D-12-15	
2. Name of Operator Bill Barrett Corporation				9. API Well No. 43-007-31362	
3a. Address 1099 18th Street, Suite 2300, Denver, CO 8020	2	3b. Phone No. <i>(include area co</i> 303-312-8134	ode)	10. Field and Pool or Ex Nine Mile/Wasatch-M	
4. Location of Well <i>(Footage, Sec., T.,)</i> NWNE, 650' FNL, 1412' FEL Sec. 28, T12S-R15E, S.L.B.&M.	R.,M., or Survey Description)		1	11. Country or Parish, S Carbon County, UT	State
12. CHEC	K THE APPROPRIATE BOX	X(ES) TO INDICATE NATUR	E OF NOTIC	E, REPORT OR OTHE	R DATA
TYPE OF SUBMISSION		TY	YPE OF ACTI	ON	
Notice of Intent  ✓ Subsequent Report	Acidize Alter Casing Casing Repair	Deepen Fracture Treat New Construction	Recla	action (Start/Resume) mation mplete	Water Shut-Off Well Integrity Other Weekly Activity
Final Abandonment Notice	Change Plans Convert to Injection	Plug and Abandon Plug Back		orarily Abandon r Disposal	Report
testing has been completed. Final determined that the site is ready fo Weekly & Final Drilling Reports from	r final inspection.)				September).
	,			DIV. OF OIL, GAS 8	& MINING
I hereby certify that the foregoing is Name (Printed/Typed)  Tracey Fallang	true and correct.	Title Enviro	nmental/Reg	ulatory Analyst	
Signature Maus	Fallanes	Date 06/20/	2008		
Ú	THIS SPACE	FOR FEDERAL OR S	TATE OF	FICE USE	
Approved by		Title		]	Date
Conditions of approval, if any, are attach that the applicant holds legal or equitable entitle the applicant to conduct operation	title to those rights in the subje	s not warrant or certify			

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false,

(Instructions on page 2)

fictitious or fraudulent statements or representations as to any matter within its jurisdiction.



Well: Prickly Pear Fed. #2-28D-12-15

Bottom Hole Display

Phase/Area: West Tavaputs

API #/License

Operations Date: 6/7/2008

Report #:

Depth At 06:00:

1515.00

1

NWNE-28-12S-15E-W26M 43-007-31362

Estimated Total Depth:

7471.00

Surface Location: NWNE-28-12S-15E-W26M

Spud Date : 6/9/2008

Days From Spud:

Morning Operations: BEGIN TO SET RIG ON LOCATION

Remarks:

Time To 6:00 AM Description

BEGIN STAGING RIG FROM 3-18 TO 2-28 WHILE FINISH SUFACE

CEMENT AND DRILL RODENT HOLES, SET CELLAR RINGS AND

WELD WELLHEADS

DAYS SINCE LAST LOST TIME ACCIDENT = 342 DAILY SAFETY MEETING = LOAD OUT TRUCKS

BBL OF WATER USED DAILY= 1680

BBL OF WATER USED TOTAL = 1680 GAL. OF DIESEL ON LOCATION=

GAL. OF DIESEL USED DAILY= GAL. OF DIESEL USED TOTAL=

**TUBULARS ON PRICKLY PEAR 2-28 LOCATION** 

1-6 1/2" AKO M.M. S/N 6045 HOURS=0 1-6 1/2" AKO M.M. S/N 6228 HOURS=0 1-6 1/2" AKO M.M. S/N 6262 HOURS=0

340- 4 1/2" DRILL PIPE

40-4 1/2" HEAVY WEIGHT DRILL PIPE 21-6 1/2" DRILL COLLARS

Well: Prickly Pear Fed. #2-28D-12-15

Phase/Area: West Tavaputs

Operations Date: 6/7/2008

Report #:

Depth At 06:00:

API #/License Bottom Hole Display NWNE-28-12S-15E-W26M 43-007-31362

Estimated Total Depth: 7471.00

Surface Location: NWNE-28-12S-15E-W26M

Spud Date : 6/9/2008

Days From Spud:

Morning Operations: Begining costs

Remarks:

Time To

Description



Well: Prickly Pear Fed. #2-28D-12-15

Bottom Hole Display

Phase/Area: West Tavaputs

API #/License

Operations Date: 6/9/2008

Report #:

3

NWNE-28-12S-15E-W26M

COMPLETE MOVE WITH DAWN TRUCKING

DRILL RAT HOLE IWORK OUT STUCK MM1

1500 PSI TEST CSG TO 1500 FOR 30 MIN

COMPLETE NIPPLE UP PREPARE TO TEST

COMPLETE RIG UP WITH CREWS

43-007-31362

Depth At 06:00 : Estimated Total Depth :

1515.00 7471.00

Surface Location: NWNE-28-12S-15E-W26M

Spud Date : 6/9/2008

Days From Spud:

Description

PRESSURE TEST TO 3000 PSI FOR 10 MIN. UPPER COCK KELLY

FOOR VALVES KILL CHECK VALVE & LINE CHOKE MANNIFOLD

MANNUAL HCR & LINE BLINDS PIPES TEST ANN FOR 10MIN TO

0

Morning Operations: PICK UP TOOLS

Time To

10:00 AM

2:00 PM

7:30 PM

11:30 PM

4:30 AM

6:00 AM

8:30 PM

Remarks:

DAYS SINCE LAST LOST TIME ACCIDENT = 344

DAILY SAFETY MEETING = TEST BOP BBL OF WATER USED DAILY= 2610 BBL OF WATER USED TOTAL = 4290 GAL OF DIESEL ON LOCATION=3709 GAL OF DIESEL USED DAILY=423

GAL. OF DIESEL USED DAILY=423
GAL. OF DIESEL USED TOTAL=525

TUBULARS ON PRICKLY PEAR 2-28 LOCATION

1-6 1/2" AKO M.M. S/N 6045 HOURS=0

1-6 1/2" AKO M.M. S/N 6228 HOURS=0 1-6 1/2" AKO M.M. S/N 6262 HOURS=0

1-8 1/2" SLICK M.M. S/N 0629 HOURS=5 1/2 [DRILLING

RAT]

340- 4 1/2" DRILL PIPE

40-4 1/2" HEAVY WEIGHT DRILL PIPE

21-6 1/2" DRILL COLLARS

Well: Prickly Pear Fed. #2-28D-12-15 Phase/Area: W

Phase/Area : West Tavaputs

API #/License

43-007-31362

Operations Date: 6/8/2008

Report #: 2

Depth At 06:00: 1515.00

Estimated Total Depth:

7471.00

Surface Location: NWNE-28-12S-15E-W26M

PICK UP BHA

Spud Date: 6/9/2008

Days From Spud:

Morning Operations : RIG UP WHILE WAIT ON TRUCKS TO RETURN

NWNE-28-12S-15E-W26M

Bottom Hole Display

Remarks:

Time To Description DAILY SAFETY MEETING = 0

10:00 AM LEVEL LOCATION WITH BLADE

BEGIN SETING RIG ON LOCATION, SEND RIG UP TRUCKS TO

RESCUE PATTERSON TRUCK STUCK BRINGING NEW PUMP

6:00 AM NIGHT SHIFT RIG UP

DAYS SINCE LAST LOST TIME ACCIDENT = 343
DAILY SAFETY MEETING = OFF LOADING TRUCKS
BBL OF WATER USED DAILY= 0

BBL OF WATER USED DAILY= 0
BBL OF WATER USED TOTAL = 1680
GAL. OF DIESEL ON LOCATION=
GAL. OF DIESEL USED DAILY=

GAL. OF DIESEL USED TOTAL=

TUBULARS ON PRICKLY PEAR 2-28 LOCATION

1-6 1/2" AKO M.M. S/N 6045 HOURS=0 1-6 1/2" AKO M.M. S/N 6228 HOURS=0 1-6 1/2" AKO M.M. S/N 6262 HOURS=0

340- 4 1/2" DRILL PIPE

40-4 1/2" HEAVY WEIGHT DRILL PIPE

21-6 1/2" DRILL COLLARS



Well: Prickly Pear Fed. #2-28D-12-15

Phase/Area: West Tavaputs

Operations Date: 6/11/2008

Report #:

Bottom Hole Display NWNE-28-12S-15E-W26M

API #/License 43-007-31362

Depth At 06:00: Estimated Total Depth:

4168.00 7471.00

Surface Location: NWNE-28-12S-15E-W26M

Spud Date : 6/9/2008

Days From Spud:

Morning Operations : DRILLING

Remarks:

Description

Time To 10:30 AM

DRILL, SLIDE & ROTATE FROM 2600'-2985'

11:00 AM

RIG SERVICE, BOP DRILL= 43 SEC, FUNCTION PIPE RAMS &

**ANNULAR** 

6:00 AM

DRILL, SURVEY & SLIDE & ROTATE FROM 2985 FT TO 4168 FT.

NOTE: BLM REP, WALTON WILLAS, STOPPED BY RIG & DONE

RIG INSPECTION ON 6/10/08. EVERY THING OK.

DAYS SINCE LAST LOST TIME ACCIDENT = 346 DAILY SAFETY MEETING = PRESSURE WASHING,

PSM, GREASING RIG BOP DRILL'S DAY & NITE TOURS

BBL OF WATER USED DAILY= 160 BBL OF WATER USED TOTAL = 4450 GAL. OF DIESEL ON LOCATION= 11374 Gal

GAL, OF DIESEL USED DAILY= 1150 GAL GAL. OF DIESEL USED TOTAL= 2005 GAL TUBULARS ON PRICKLY PEAR 2-28 LOCATION

1-6 1/2" AKO M.M. S/N 6045 HOURS=0 1-6 1/2" AKO M.M. S/N 6228 HOURS=0

1-6 1/2" AKO M.M. S/N 6262 HOURS= 41.5 HR TTL.

DRLG 8 3/4"

1-8 1/2" SLICK M.M. S/N 0629 HOURS=5 1/2 [DRILLING

RAT]

340- 4 1/2" DRILL PIPE

40-4 1/2" HEAVY WEIGHT DRILL PIPE

21-6 1/2" DRILL COLLARS

2 X 4.50" CSG

NOTE: BLM REP, WALTON WILLAS CAME ON RIG

6/10/08 & DONE RIG INSPECTION & EVERY THING OK

Well: Prickly Pear Fed. #2-28D-12-15

NWNE-28-12S-15E-W26M

Bottom Hole Display

Phase/Area: West Tavaputs

API #/License

43-007-31362

Operations Date: 6/10/2008

Report #:

Depth At 06:00:

2600.00

Estimated Total Depth:

7471.00

Surface Location: NWNE-28-12S-15E-W26M

Spud Date: 6/9/2008

**ANNULAR** 

Days From Spud:

Description

PU, BIT, MOTOR, DIR. TOOLS, ORIENT TOOL FACE, PU BHA &

TIH, TAG CEMENT @1465', FLOAT @1473', SHOE @1515', INSTALL ROT RUBBER & CORRISION RING.

DRILL CMT, FLOAT, CMT, SHOE & CLN-OUT TO 1515 FT

DRILL, SURVEY & SLIDE FROM 1515 FT TO 2600 FT

RIG SERVICE, BOP DRILL 56 SEC, FUNCTION PIPE RAMS &

Morning Operations : DRILLING

Time To

10:00 AM

10:30 AM

12:00 PM

6:00 AM

Remarks:

DAYS SINCE LAST LOST TIME ACCIDENT = 345

DAILY SAFETY MEETING = PU BHA, BOP DRILL'S DAY

& NITE TOURS

BBL OF WATER USED DAILY= 0

BBL OF WATER USED TOTAL = 4290

GAL. OF DIESEL ON LOCATION= 3379 Gal GAL. OF DIESEL USED DAILY= 330 GAL

GAL. OF DIESEL USED TOTAL= 855 GAL

TUBULARS ON PRICKLY PEAR 2-28 LOCATION

1-6 1/2" AKO M.M. S/N 6045 HOURS=0

1-6 1/2" AKO M.M. S/N 6228 HOURS=0

1-6 1/2" AKO M.M. S/N 6262 HOURS= 18 HR DRLG 8 3/4"

1-8 1/2" SLICK M.M. S/N 0629 HOURS=5 1/2 [DRILLING RAT]

340- 4 1/2" DRILL PIPE

40-4 1/2" HEAVY WEIGHT DRILL PIPE

21-6 1/2" DRILL COLLARS

2 X 4.50" CSG



Well: Prickly Pear Fed. #2-28D-12-15

NWNE-28-12S-15E-W26M

Bottom Hole Display

Phase/Area: West Tavaputs

API #/License

43-007-31362

Operations Date: 6/12/2008

Report #:

Depth At 06:00:

5213.00

7471.00 Estimated Total Depth:

Surface Location: NWNE-28-12S-15E-W26M

Spud Date: 6/9/2008

Days From Spud:

Morning Operations: DRILLING

Time To

Description

9:00 AM 9:30 AM DRILL, SURVEY, SLIDES & ROTATE FROM 4168 FT TO 4425 FT RIG SERVICE, BOP DRILL= 52 SEC, FUNCTION PIPE RAMS

6:00 AM

DRILL, SURVEY, SLIDE & ROTATE FROM 4425 FT TO 5213 FT

Remarks:

DAYS SINCE LAST LOST TIME ACCIDENT = 347 DAILY SAFETY MEETING = MOUSE HOLING DP. SETTING KELLEY BACK, BOP DRILL'S DAY & NITE

TOURS

BBL OF WATER USED DAILY= 0 BBL OF WATER USED TOTAL = 4450 GAL. OF DIESEL ON LOCATION= 9341 Gal GAL. OF DIESEL USED DAILY= 884 GAL GAL. OF DIESEL USED TOTAL= 2889 GAL TUBULARS ON PRICKLY PEAR 2-28 LOCATION

1-6 1/2" AKO M.M. S/N 6045 HOURS=0 1-6 1/2" AKO M.M. S/N 6228 HOURS=0

1-6 1/2" AKO M.M. S/N 6262 HOURS= 65.0 HR TTL.

DRLG 8 3/4"

1-8 1/2" SLICK M.M. S/N 0629 HOURS=5 1/2 [DRILLING RAT]

340- 4 1/2" DRILL PIPE

40-4 1/2" HEAVY WEIGHT DRILL PIPE

21-6 1/2" DRILL COLLARS

2 X 4.50" CSG

NOTE: 4.5" I-100 NOT AVAILABLE - 7355 FT OF 4.50", 11.6#, P-110 LTC PROD CSG ORDERED FOR 10:00 AM

6/12/08



Well: Prickly Pear Fed. #2-28D-12-15

Phase/Area: West Tavaputs

API #/License

Operations Date: 6/13/2008

Report #:

6170.00

Bottom Hole Display
NWNE-28-12S-15E-W26M

43-007-31362

Depth At 06:00 : Estimated Total Depth :

7471.00

Surface Location: NWNE-28-12S-15E-W26M

Spud Date : 6/9/2008

Days From Spud:

Morning Operations : DRILLING

Description

Time To 1:30 PM

DRILL, SURVEY, SLIDE & ROTATE FROM 5213 FT TO 5578 FT

2:00 PM

RIG SERVICE, FUNCTION PIPE RAMS & ANNULAR, BOP DRILL=

**31 SEC** 

6:00 AM

DRILL, ROTATING W/ MWD SURVEYS F/ 5578 FT TO 6170 FT

DAYS SINCE LAST LOST TIME ACCIDENT = 348
DAILY SAFETY MEETING = FORKLIFT SAFETY, PU
TOOLS OFF CATWALK, BOP DRILL'S DAY & NITE

TOURS

Remarks:

BBL OF WATER USED DAILY=400 BBL OF WATER USED TOTAL = 4850

GAL. OF DIESEL ON LOCATION= 8500 Gal GAL. OF DIESEL USED DAILY= 841 GAL GAL. OF DIESEL USED TOTAL= 3730 GAL

TUBULARS ON PRICKLY PEAR 2-28 LOCATION

1-6 1/2" AKO M.M. S/N 6045 HOURS=0 1-6 1/2" AKO M.M. S/N 6228 HOURS=0

- 1-6 1/2" AKO M.M. S/N 6262 HOURS= 88.5 HR TTL. DRLG 8 3/4"

1-8 1/2" SLICK M.M. S/N 0629 HOURS=5 1/2 [DRILLING

RAT] 340- 4 1/2" DRILL PIPE

40-4 1/2" HEAVY WEIGHT DRILL PIPE 21-6 1/2" DRILL COLLARS

21-6 1/2" DRILL COLL 2 X 4.50" CSG

NOTE: 4.5" I-100 NOT AVAILABLE - 7355 FT OF 4.50", 11.6#, P-110 LTC PROD CSG Recv'd 173 Jnts Rge 3 Csg

+ 2 Mkr Jts on 6/12/08



Well: Prickly Pear Fed. #2-28D-12-15

Bottom Hole Display

Phase/Area: West Tavaputs

API #/License

Operations Date: 6/14/2008

Report #:

8

Depth At 06:00:

6870.00

NWNE-28-12S-15E-W26M

43-007-31362

Estimated Total Depth:

7471.00

Surface Location: NWNE-28-12S-15E-W26M

Spud Date: 6/9/2008

Days From Spud:

Morning Operations: CIRC BOTTEMS UP, PREP FOR TOH

Time To

Description

5:30 AM

DRILL, SURVEY, ROTATE & SLIDE F/ 6462 FT TO 6870 FT

12:30 PM 1:00 PM

DRILL, SURVEY, SLIDE & ROTATE FROM 6170 FT TO 6462 FT RIG SERVICE, FUNCTION PIPE RAMS & ANNULAR, BOP DRILL=

6:00 AM

CIRCULATE BOTTEMS-UP & SLUG PIPE

Remarks:

DAYS SINCE LAST LOST TIME ACCIDENT = 349 DAILY SAFETY MEETING = PUMP REPAIR, BOP

**DRILL'S DAY & NITE TOURS** BBL OF WATER USED DAILY= 0

BBL OF WATER USED TOTAL = 4850

GAL. OF DIESEL ON LOCATION= 7555 Gal

GAL. OF DIESEL USED DAILY= 645 GAL

GAL. OF DIESEL USED TOTAL= 4375 GAL

TUBULARS ON PRICKLY PEAR 2-28 LOCATION

1-6 1/2" AKO M.M. S/N 6045 HOURS=0

1-6 1/2" AKO M.M. S/N 6228 HOURS=0

1-6 1/2" AKO M.M. S/N 6262 HOURS= 111.5 HR TTL.

DRLG 8 3/4"

1-8 1/2" SLICK M.M. S/N 0629 HOURS=5 1/2 [DRILLING

RAT]

340- 4 1/2" DRILL PIPE

40-4 1/2" HEAVY WEIGHT DRILL PIPE

21-6 1/2" DRILL COLLARS

2 X 4.50" CSG

NOTE: 4.5" I-100 NOT AVAILABLE - 7355 FT OF 4.50",

11.6#, P-110 LTC PROD CSG Recv'd 173 Jnts Rge 3 Csg

+ 2 Mkr Jts on 6/12/08



Well: Prickly Pear Fed. #2-28D-12-15

NWNE-28-12S-15E-W26M

Bottom Hole Display

Phase/Area: West Tavaputs

API #/License

43-007-31362

Operations Date: 6/15/2008

Report #:

Depth At 06:00:

7464.00

Estimated Total Depth:

7471.00

Surface Location: NWNE-28-12S-15E-W26M

Spud Date: 6/9/2008

Days From Spud:

Morning Operations: TD @7464', CIRC & PREP FOR SHORT TRIP,

Time To

Description

1:00 PM

TOH LAY DOWN DIR TOOLS, CHANGE OUT MOTOR, FUNCTION BLIND RAMS, PU 7 7/8" BIT #2, TIH TO 6821 FT, BROKE CIRC

@4407 FT, PRECAUTIONARY WASH & REAM 6821 FT TO TD @6870 FT. FUNCTION BLIND RAMS

1:30 PM

RIG SERVICE, BOP DRILL= 46 SEC, FUNCTION PIPE RAMS

6:00 AM

DRILL 7 7/8" HOLE FROM 6870 FT TO TD @ 7464 FT

#### Remarks:

DAYS SINCE LAST LOST TIME ACCIDENT = 350 DAILY SAFETY MEETING = PUMP REPAIR, TRIPPING. **BOP DRILL'S DAY & NITE TOURS** BBL OF WATER USED DAILY= 620 BBL BBL OF WATER USED TOTAL = 5470 GAL. OF DIESEL ON LOCATION= 6818 Gal GAL. OF DIESEL USED DAILY= 737 GAL GAL. OF DIESEL USED TOTAL= 5112 GAL TUBULARS ON PRICKLY PEAR 2-28 LOCATION 1-6 1/2" AKO M.M. S/N 6045 HOURS=16.5 Hrs W/ 7 7/8" **BIT #2** 

1-6 1/2" AKO M.M. S/N 6228 HOURS=0 1-6 1/2" AKO M.M. S/N 6262 HOURS= 111.5 HR TTL.

DRLG 8 3/4"

1-8 1/2" SLICK M.M. S/N 0629 HOURS=5 1/2 [DRILLING RAT]

340- 4 1/2" DRILL PIPE 40-4 1/2" HEAVY WEIGHT DRILL PIPE 21-6 1/2" DRILL COLLARS

2 X 4.50" CSG

NOTE: 4.5" I-100 NOT AVAILABLE - 7355 FT OF 4.50", 11.6#, P-110 LTC PROD CSG Recv'd 173 Jnts Rge 3 Csg

+ 2 Mkr Jts on 6/12/08



Well: Prickly Pear Fed. #2-28D-12-15

Phase/Area: West Tavaputs

API #/License

Operations Date: 6/16/2008

Report #:

Depth At 06:00:

7464.00

**Bottom Hole Display** NWNE-28-12S-15E-W26M

43-007-31362

Estimated Total Depth:

7471.00

Surface Location: NWNE-28-12S-15E-W26M

Spud Date: 6/9/2008

Days From Spud:

7

Morning Operations: RUNNING PROD CASING

Time To	Description
7:00 AM	CIRC BOTTEMS UP
8:00 AM	10 STAND SHORT TRIP
9:00 AM	CIRC @TD, SLUG PIPE
11:30 AM	TOH, LD MOTOR & PDC BIT
12:00 PM	PULL WEAR BUSHING, CHG SAVER SUB & CORRISION RING
5:00 PM	S>MTG, RU HES, LOG Open Hole, RWCH, SDL/DSN, HRI F/7446 FT TO SURF @ 1515 FT, RD LOGGERS
8:30 PM	TIH TO 7434 FT, BREAK CIRC @4000 FT
9:00 PM	WASH & REAM 30 FT TO BTM @7464 FT
10:00 PM	CIRC & CONDITION MUD @ TD
5:00 AM	S.MTG, RU LD MACHINE,TOH LD DRL STRING, HAD TIGHT HOLE @7300', PUMPED 11 JTS OUT ON TOH
6:00 AM	S.MTG, RU TO RUN CASING

#### Remarks:

DAYS SINCE LAST LOST TIME ACCIDENT = 351 DAILY SAFETY MEETING = TRIPPING, LOGGING, LD Drl String, BOP DRILL'S DAY & NITE TOURS BBL OF WATER USED DAILY= 320 BBL BBL OF WATER USED TOTAL = 5790 GAL. OF DIESEL ON LOCATION= 6207 Gal GAL. OF DIESEL USED DAILY= 611 GAL GAL. OF DIESEL USED TOTAL= 5723 GAL TUBULARS ON PRICKLY PEAR 2-28 LOCATION 1-6 1/2" AKO M.M. S/N 6045 HOURS=16.5 Hrs W/ 7 7/8" BIT#2 1-6 1/2" AKO M.M. S/N 6228 HOURS=0 1-6 1/2" AKO M.M. S/N 6262 HOURS= 111.5 HR TTL. DRLG 8 3/4" 1-8 1/2" SLICK M.M. S/N 0629 HOURS=5 1/2 [DRILLING RAT] 340- 4 1/2" DRILL PIPE 40-4 1/2" HEAVY WEIGHT DRILL PIPE 21-6 1/2" DRILL COLLARS 174 X 4.50",11.6#, P-110,LTC,R.III P. CSG + 2 MKR JTS =7397 FT ON Racks (NOTE: Recived 4170.6 FT OF 4.50", 11.6#, P-110 LTC PROD CSG Recv'd 97 Jnts Rge 3 Csg Jts on 6/15/08)

## REGULATORY DRILLING SUMMARY



Well: Prickly Pear Fed. #2-28D-12-15

NWNE-28-12S-15E-W26M

Bottom Hole Display

Phase/Area: West Tavaputs

API #/License

43-007-31362

Operations Date: 6/17/2008

Report #: 11

7464.00

Depth At 06:00: Estimated Total Depth:

7471.00

Surface Location: NWNE-28-12S-15E-W26M

Spud Date: 6/9/2008

Time To

10:30 AM

12:00 PM

2:30 PM

4:30 PM

5:00 PM

Days From Spud:

Morning Operations: RIG RELEASED @17:00 HR, 6/16/08 TO SKID TO NEXT WELL

INCLUDED, FLOAT SHOE ON BTM, FLOAT COLLAR & 36

HALAD-322, 0.2% FWCA, 3 #/SK SILICALITE, 0.125 #/SK

RU HALLIBURTON, P.TEST, PUMP 10 BBL WATER, 20 BBL 9.2#

1610 SKS POZ PREMIMUM 50/50- SBM CMT W/ 3% KCL, 0.75%

POLYFLAKE &1.0#/SK GRANULATE TR 1/4 ADDITIVES @13.4

PLUG & DISP W/115 BBL 2% KCL WTR. BUMP PLUG @2:20 PM,

BPM SPR @2050#, BMP TO 2550# GOOD RETURNS THRU-OUT,

SET SLIPS @110K/35K OVER STRING WT, NDBOP'S & CLEAN

RD W/CREWS, NOTE: RIG RELEASED TO SKID @5:00 PM ON

6/16/08. REL PRESS & FLOAT HELD, PR PRIOR TO BMP @2.5

#/GAL, 1.49 YIELD, 7.06 GPS/WTR, 427 BBL SLURRY. DROP

SUPERFLUSH & 10 BBL WATER SPACERS AHEAD, MIX & PUMP

CENTRALIZERS. LAND CASING @7451 FT, KBM

CIRC & COND, RD CASERS, S.MTG W/ HALCO

CIRC 2 BBL SLURRY TO SURF. RD HALCO

Remarks:

DAYS SINCE LAST LOST TIME ACCIDENT = 352 Description DAILY SAFETY MEETING = RUN SSG, CEMENTING RUN 177 JTS 4.5", 11.6#, P-110, LT&C PROD CSG W/ 2 x MKR Jts

BBL OF WATER USED DAILY= 0 BBL

BBL OF WATER USED TOTAL = 5790 GAL. OF DIESEL ON LOCATION= 6207 Gal

GAL. OF DIESEL USED DAILY= GAL GAL, OF DIESEL USED TOTAL= 5723 GAL

TUBULARS ON PRICKLY PEAR 2-28 LOCATION

1-6 1/2" AKO M.M. S/N 6045 HOURS=16.5 Hrs W/ 7 7/8" **BIT #2** 

1-6 1/2" AKO M.M. S/N 6228 HOURS=0

1-6 1/2" AKO M.M. S/N 6262 HOURS= 111.5 HR TTL.

DRLG 8 3/4"

1-8 1/2" SLICK M.M. S/N 0629 HOURS=5 1/2 [DRILLING

RAT]

340- 4 1/2" DRILL PIPE

40-4 1/2" HEAVY WEIGHT DRILL PIPE

21-6 1/2" DRILL COLLARS

(NOTE: Recived 4170.6 FT OF 4.50", 11.6#, P-110 LTC PROD CSG Recv'd 97 Jnts Rge 3 Csg Jts on 6/15/08)

6/16/08.

MUD TANKS

June 20, 2008

Page 1

#### tfallang CONFIDENTIAL

# UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT,

5. Lease Serial No. UTU-73670

6. If Indian, Allottee or Tribe Name

# SUNDRY NOTICES AND REPORTS ON WELLS / Do not use this form for proposals to drill or to rejenter and abandoned well. Use Form 3160-3 (APD) for such proposals

abandoned well.	Use Form 3160-3 (A	APD) for such	proposal	ş. ( ` `			
SOBILL IN THE EIGHT LOUIS OF page 2.					7. If Unit of CA/Agreement, Name and/or No.		
1. Type of Well					Prickly Pear Unit / U	10-079487	
					8. Well Name and No. Prickly Pear Unit Fed	deral 2-28D-12-15	
Name of Operator     Bill Barrett Corporation					9. API Well No. 43-007-31362		
3a. Address		3b. Phone No. (ii	nclude area cod	de)	10. Field and Pool or E	xploratory Area	
1099 18th Street, Suite 2300, Denver, CO 8020		303-312-8134			Nine Mile/Wasatch-N	Mesaverde	
<ol> <li>Location of Well (Footage, Sec., T., I NWNE, 650' FNL, 1412' FEL</li> <li>Sec. 28, T12S-R15E, S.L.B.&amp;M.</li> </ol>	R., M., or Survey Description	1)			11. Country or Parish, S Carbon County, UT	State	
12. CHEC	K THE APPROPRIATE BO	OX(ES) TO INDIC	ATE NATURE	E OF NOTIC	CE, REPORT OR OTHE	ER DATA	
TYPE OF SUBMISSION			TY	PE OF ACT	ION		
N. G SI	Acidize	Deepen		Prod	uction (Start/Resume)	Water Shut-Off	
Notice of Intent	Alter Casing	Fracture	Treat		amation	Well Integrity	
<del></del>	Casing Repair	□ New Co	nstruction	Reco	omplete	Other Weekly Activity	
✓ Subsequent Report	Change Plans	_	d Abandon	_	porarily Abandon	Report	
Final Abandonment Notice	Convert to Injection	Plug an			er Disposal		
determined that the site is ready for Waiting on completion (tentatively b	• ,				RECE JUN 2 DIV. OF OIL, G	7 2008	
14. I hereby certify that the foregoing is t Name (Printed/Typed)	rue and correct.					and the second s	
Tracey Fallang		-	Title Environr	nental/Reg	julatory Analyst		
Signature Lally	Fallane	]	Date 06/26/20	008			
- $U$	THIS SPACE	FOR FEDER	AL OR ST	ATE OF	FICE USE	,	
Approved by							
			Title		I	Date	
Conditions of approval, if any, are attache	d. Approval of this notice do	es not warrant or cer	tify				
that the applicant holds legal or equitable the applicant to conduct operations		ect lease which wou	ld Office				

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false,

fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

(Instructions on page 2)

## tfallang CONFIDENTIAL

# UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM Expires:	DEVEN 1004-0137 July 31, 2044
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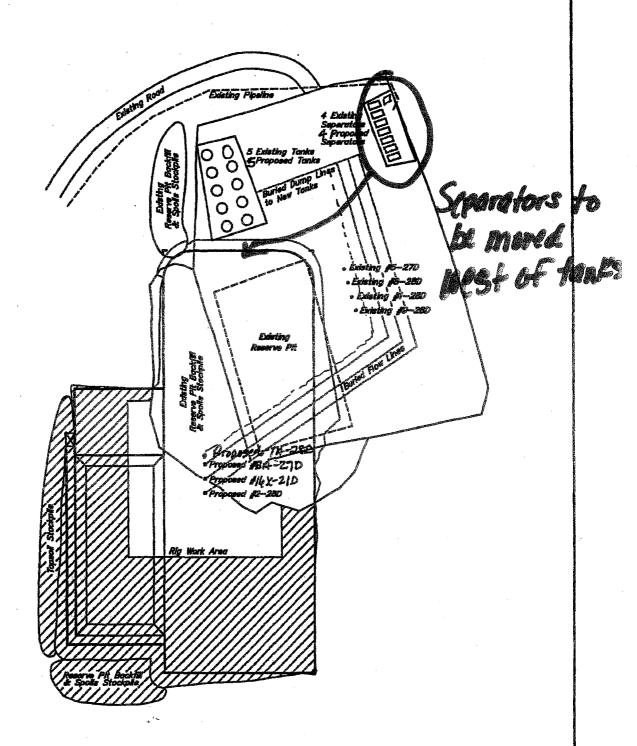
BUR	5. Lease Serial No. UTU-73670				
Do not use this f	OTICES AND REPORTS ON Vorm for proposals to drill or to Use Form 3160-3 (APD) for su	re-enter an		6. If Indian, Allottee or N/A	Tribe Name
	IN TRIPLICATE - Other instructions of	n page 2.		7. If Unit of CA/Agreen Prickly Pear Unit / UT	· ·
1. Type of Well Oil Well Gas W	Vell Other			8. Well Name and No.	<u> </u>
2. Name of Operator Bill Barrett Corporation		<del> </del>		Prickly Pear Unit Fed 9. API Well No. 43-007-31362	eral 2-28D-12-15
3a. Address	3b. Phone No	. (include area code)	<del></del>	10. Field and Pool or Ex	xploratory Area
1099 18th Street, Suite 2300, Denver, CO 8020	303-312-813	4		Nine Mile/Wasatch-M	
4. Location of Well (Footage, Sec., T., NWNE, 650 FNL, 1412 FEL Sec. 28, T12S-R15E, S.L.B.&M.	K.,M., or Survey Description)			11. Country or Parish, S Carbon County, UT	tate
12. CHEC	K THE APPROPRIATE BOX(ES) TO INI	DICATE NATURE O	F NOTIO	CE, REPORT OR OTHE	R DATA
TYPE OF SUBMISSION		ТҮРЕ	OF ACT	NOI	
Notice of Intent	Acidize Deep	`		uction (Start/Resume)	Water Shut-Off
1		ture Treat		amation	<ul><li>Well Integrity</li><li>✓ Other Change in facility</li></ul>
✓ Subsequent Report		Construction		omplete	layout
Final Abandonment Notice		and Abandon Back		porarily Abandon er Disposal	·
preference, facilities will still be grou office on July 11, 2008.	otification,that the facility layout for this uped together to allow for maximum recurrent transfer information, please contact me at	amation. This char	nge was	approved verbally by S	Steve Rigby, Price BLM field
					RECEIVED
					JUL 16 2008
14 11 1 (6 11 2)					DIV. OF OIL, GAS & MINING
<ol> <li>I hereby certify that the foregoing is t Name (Printed/Typed)</li> </ol>	rue and correct.				А
Tracey Fallang		Title Environme	ntal/Reg	julatory Analyst	
Signature Macua	Fallany	Date 07/14/2008	8		
	THIS SPACE FOR FED	ERAL OR STA	TE OF	FICE USE	
Approved by					
		Title	<del></del>	D	ate
Conditions of approval, if any, are attache that the applicant holds legal or equitable tentitle the applicant to conduct operations	<ul> <li>Approval of this notice does not warrant or citle to those rights in the subject lease which was thereon.</li> </ul>	certify vould Office	· ·		
	U.S.C. Section 1212, make it a crime for any esentations as to any matter within its jurisdicti		willfully	to make to any department	or agency of the United States any false

#### BILL BARRETT CORPORATION

#### PRODUCTION FACILITY LAYOUT FOR



SCALE: 1" = 100' DATE: 01-18-08 DRAWN BY: C.C. PRICKLY PEAR UNIT FEDERAL #1-28-12-15 PAD SECTION 28, T12S, R15E, S.L.B.&M.
NW 1/4 NE 1/4



UINTAH ENGINEERING & LAND SURVEYING &S Se. 200 East \* Vernel, Utah 84072 \* (435) 782-1017

#### tfallang CONFIDENTIAL

### **UNITED STATES** DEPARTMENT OF THE INTERIOR

BUREAU OF LAND MANAGEMENT
SUNDRY NOTICES AND REPORTS ON WELLS

FORM APPROVED OMB No. 1004-018 Expres: July 31, 2010  5. Lease Serial No. UTU-73670
6. If Indian, Allottee or Tribe Name

	form for proposals Use Form 3160-3 (A				N/A	
SUBMI	T IN TRIPLICATE Othe	r instructions or	page 2.		1	ment, Name and/or No.
1. Type of Well					Prickly Pear Unit / U	
Oil Well  Gas Well  Other					8. Well Name and No. Prickly Pear Unit Fe	deral 2-28D-12-15
2. Name of Operator 9 Bill Barrett Corporation 4					9. API Well No. 43-007-31362	
3a. Address		3b. Phone No.	(include area co	de)	10. Field and Pool or E	xploratory Area
1099 18th Street, Suite 2300, Denver, CO 8020	02	303-312-8134			Nine Mile/Wasatch-N	Mesaverde
4. Location of Well <i>(Footage, Sec., T.,</i> NWNE, 650' FNL, 1412' FEL Sec. 28, T12S-R15E, S.L.B.&M.	R.,M., or Survey Description	n)		·	11. Country or Parish, Carbon County, UT	State
12. CHEC	K THE APPROPRIATE BO	OX(ES) TO INDI	CATE NATURI	E OF NOTIO	CE, REPORT OR OTHE	ER DATA
TYPE OF SUBMISSION			TY	PE OF ACT	ION	
Notice of Intent	Acidize	Deepe	n	<b>✓</b> Prod	uction (Start/Resume)	Water Shut-Off
Notice of fixent	Alter Casing	Fractu	re Treat	Recla	amation	Well Integrity
G. S. J. S.	Casing Repair	☐ New (	Construction	Reco	mplete	Other
✓ Subsequent Report	Change Plans	Plug a	nd Abandon	Tem	porarily Abandon	
Final Abandonment Notice	Convert to Injection	Plug I			er Disposal	
This sundry is being submitted as n	otification that this well ha	ad first sales on	August 27, 200	8.		<i>i</i> .
14. I hereby certify that the foregoing is t Name (Printed/Typed)	rue and correct.					
Tracey Fallang			Title Environr	nental/Reg	ulatory Analyst	
Signature Mulus	s Fallane	<b>f</b>	Date 08/28/20	008		
(	THIS SPACE	FOR FEDE	RAL OR ST	ATE OF	FICE USE	
Approved by						
· · · · · · · · · · · · · · · · · · ·	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		Title		Ι	Date
Conditions of approval, if any, are attached that the applicant holds legal or equitable tentitle the applicant to conduct operations	itle to those rights in the subje					
Title 18 U.S.C. Section 1001 and Title 43 fictitious or fraudulent statements or repre	U.S.C. Section 1212, make it esentations as to any matter w	a crime for any pe	rson knowingly a	nd willfully t	o make to any departmen	RECEIVED States any false

(Instructions on page 2)

fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

## \* Form 3160-5

## (August 2007)

### **UNITED STATES** DEPARTMENT OF THE INTERIOR

**BUREAU OF LAND MANAGEMENT** 

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CONFIDENTIAL

FORM APPROVED OMB No. 1004-0137

Expires: July 31, 2010

5. Lease Serial No. UTU-73670

				4 6 6 7 8			
					6. If Indian, Allottee N/A	or Tribe Nai	me
SOBILITIA INFLICATE - Other instructions on page 2.					7. If Unit of CA/Agreement, Name and/or No. Prickly Pear Unit / UTU-079487		
1. Type of Well  Oil Well  Gas W	ell Other				8. Well Name and No Prickly Pear Unit F		BD-12-15
2. Name of Operator Bill Barrett Corporation				<del>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</del>	9. API Well No. 43-007-31362		
3a. Address 1099 18th Street, Suite 2300, Denver, CO 8020	2	3b. Phone No. (303-312-8134	include area c	ode)	10. Field and Pool or Nine Mile/Wasatch		
4. Location of Well (Footage, Sec., T., I NWNE, 650' FNL, 1412' FEL Sec. 28, T12S-R15E, S.L.B.&M.	R.,M., or Survey Description				11. Country or Parish Carbon County, UT		, , , , , , , , , , , , , , , , , , , ,
12. CHEC	K THE APPROPRIATE BO	X(ES) TO INDIC	CATE NATUR	E OF NOTIC	E, REPORT OR OTI	ER DATA	
TYPE OF SUBMISSION			T	PE OF ACT	ION		
Notice of Intent	Acidize Alter Casing	Deeper Fractur		=	uction (Start/Resume)	Wei	ter Shut-Off
✓ Subsequent Report	Casing Repair Change Plans		onstruction d Abandon	_	mplete orarily Abandon		er Weekly Activity Report
Final Abandonment Notice	Convert to Injection	Plug Ba		^	r Disposal		
following completion of the involve testing has been completed. Final A determined that the site is ready for Weekly completion activity reports fr	Abandonment Notices must I final inspection.)	be filed only after	all requiremen				
14. I hereby certify that the foregoing is tr Name (Printed/Typed)	ue and correct.						
Tracey Fallang		7	Title Environ	mental/Regu	latory Analyst		
Signature Mull	Signature Mau Fallma Date 08/29/2008						···
J	THIS SPACE	FOR FEDER	AL OR ST	ATE OFF	ICE USE		
Approved by		. ' .	Title			Date	
Conditions of approval, if any, are attached that the applicant holds legal or equitable tientitle the applicant to conduct operations to	tle to those rights in the subject		tify		<u>.,</u>		

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)



Well Name: Prickly Pear Fed. #2-28D-12-15

Phase/Area

West Tavaputs

Bottom Hole Display	API #/License
NWNE-28-12S-15E-W26M	43-007-31362

Ops Date: 8/27/2008

Report #:

8

AFE #: 14743D

Summary: Flow back stages 1-8 SI. El stages 9. Frac #9. Flow stages 1-9. RDMO Wire

line & Frac. flow back clean up for

production sales.

**End Time** 4:00 AM

Description

Flow stages 1-8 FCP: 720 PSI ON 42 ck. recovered 605 bbl in 9

hours CO2 high.

5:30 AM

shut in for EL work

Black Warrior EL stage 9 North Horn. PU HES CFP with 10 ft. perf 6:30 AM

guns. RIH correlate to short jt. run to setting depth set CFP @ 5250 ft. PU perforate @ 5165-5175, 3JSPF, 120 phasing, 29 gram

charges, .370 holes. POOH turn well to frac.

HES frac stage 9 North Horn 70Q foam frac. Load & break @ 2,802 7:30 AM

PSI @ 18.3 BPM. Avg. Wellhead Rate: 28.78 BPM. Avg. Slurry Rate: 11.87 BPM. Avg. CO2 Rate: 15.43 BPM. Avg. Pressure: 4,048 PSI. Max. Wellhead Rate: 29.78 BPM. Max. Slurry Rate: 15.19 BPM. Max. Co2 Rate: 18.98 BPM. Max. Pressure: 4,257 PSI. Total Fluid Pumped: 15,414 Gal. Total Sand in Formation: 64,400 Ib. (20/40 White Sand) CO2 Downhole: 95 tons. CO2 Cooldown: 7 tons. ISIP:2,967 PSI. Frac Gradient: 1.01 psi/ft. Successfully

flushed wellbore with 50Q foam 50 bbl over flush with 500 gal. fluid

7:45 AM Opsco start flow back stages 1-9

rig down HES frac equipment and Black Warrior EL . move off loc. 9:30 AM

for IPS Coil tbg. unit.

flow stages 1-9 through Opsco flow equipment. 11:59 PM



Well Name: Prickly Pear Fed. #2-28D-12-15

Phase/Area

West Tavaputs

Bottom Hole Display	API #/License
NWNE-28-12S-15E-W26M	43-007-31362

Ops Date: 8/26/2008

Report #:

AFE #: 14743D

Summary: SICP: 1000 EL stage 5 Frac #5. EL

stage 6. Frac #6. EL stage 7. Frac #7. EL stage 8. Frac #8. SI. Flow stages 1-8

through Opsco flow equipment.

**End Time** 

5:30 AM 7:00 AM

SICP 1000

Black Warrior EL stage 5 Upper Dark Canyon. PU HES CFP with 25 ft, perf guns. RIH correlate to short jt. run to setting depth set CFP 6820 ft. PU perforate @ 6717-6742, 3JSPF, 120 phasing, 29 gram

Description

charges, .370 holes. POOH turn well to frac.

9:00 AM

HES safety Meeting. Work on pump. Pressure test. Frac stage 5 Upper Dark Canyon 70Q foam frac. Load & Break @ 3,991 PSI. @ 11.1 BPM. Avg. Wellhead Rate: 38.21 BPM. Avg. Slurry Rate: 15.45 bpm, Avg. CO2 Rate:21.05 BPM, Avg. Pressure; 5417 PSI. Max. Wellhead Rate: 42.6 BPM. Max. Slurry Rate: 21.1 BPM. Max. Co2 Rate: 24.8 BPM. Max. Pressure: 6,624 PSI. Total Fluid pumped: 21.957 Gal. Total Sand in Formation: 86,900 lb. Had to cut sand due to HES pumps kicking out and spiking sand screening out frac. . pressure increased. pumped 869 sacks of design of 920 sack. Successfully flushed wellbore with 50Q foam 50 bbl over flush with 500 gal. fluid cap.

10:00 AM

Black Warrior. EL stage 6 North Hom. PU HES CFP with 10 ft. perf guns. RIH correlate to short it. run to setting depth set CFP @ 6400 ft. PU to perf depth. Pressure up 500 psi over shut in PSI. Perforate @ 6303-6305, 5948-5953, & 5842-5845, # JSPF, 120 phasing, 29 gram charges, .370 holes. POOH turn well to frac.

10:30 AM

HES frac stage 6 North Horn 70Q foam frac. Load & Break @5,161 PSI @21 BPM. Pressure climbing to max PSI. at half rate of

design.. Shut down in pad stage due to high PSI..

12:00 PM

BWWC reperf middle interval in stage 6 @ 5948-5953, PU 5 ft. perf gun RIH correlate to short jt. Run to perf depth pump KCL water @ 3 BPM. Perforate @ 5948-5953, 3 JSPF< 120 phasing, 29 gram

charges, .370 Holes. POOH turn well to frac.

2:00 PM

HES frac stage 6 North Horn 70Q foam frac. Load & break @ 5,161 PSI @ 21 BPM. Avg. Wellhead Rate: 38.89 BPM. Avg. Slurry Rate: 16.58 BPM. Avg. Co2 Rate: 20.4 BPM. Avg. Pressure: 6,029 PSI. Max. Wellhead Rate: 40.46 BPM. Max. Slurry Rate: 20.11 BPM. Max. CO2 Rate: 25,54 BPM. Max. Pressure: 6,432 PSI. Total Fluid Pumped: 33,081 Gal. Total Sand in Formation: 144,500 Lb.(20/40 White Sand) CO2 Downhole: 210 tons. Co2 Cooldown: 15 tons. ISIP:2,910 PSI. Frac Gradient: 0.92 psi/ft. Successfully flushed wellbore with 50Q foam 50 bbl over flush with 500 gal, fluid cap.

3:15 PM

BWWC EL stage 7 North Horn. PU HES CFP with 10 ft. perf guns. RIH correlate to short it. Run to setting depth set CFP @ 5590ft. PU. pressure up 500 psi over Sl. Perforate @ 5480-5490, 3 JSPF, 120 phasing, 29 gram charges, .370 holes. POOH turn well to frac.



Well Name: Prickly Pear Fed. #2-28D-12-15

Phase/Area

West Tavaputs

Bottom Hole Display	API #/License
NWNE-28-12S-15E-W26M	43-007-31362

Ops Date: 8/26/2008

Report #:

AFE #: 14743D

Summary: SICP: 1000 EL stage 5 Frac #5. EL

stage 6. Frac #6. EL stage 7. Frac #7.

EL stage 8. Frac #8. SI. Flow stages 1-8

through Opsco flow equipment.

**End Time** 4:10 PM

Description

HES Frac stage 7 Horth Horn 65Q Foam Frac. Load & break @ 3,576 PSI @ 25 BPM. Avg. Wellhead Rate: 22.2 BPM. Avg. Slurry Rate: 10.4 BPM. Avg. CO2 Rate: 10.6 BPM. Avg. Pressure: 3,771 PSI. Max. Wellhead Rate: 25.4 BPM. Max. Slurry Rate: 13.4 BPM. Max. CO2 Rate: 14.6 BPM. Max. Pressure: 4,119 PSI. Total Fluid Pumped: 11,320 Gal. Total Sand in Formation: 36,300 lb.(20/40 White Sand) CO2 Downhole: 51 tons. CO2 Cooldown: 7 tons. ISIP:3,192 PSI. Frac Gradient: 1.02 psi/ft. Lost prime in CO2 pumps in 1 # sand stage sand jumped to 3.5 # sand. Successfully flushed wellbore with 50Q foam 50 bbl over flush with 500 gal. fluid

cap.

5:10 PM

BWWC EL stage 8 North Horn. PU HES CFP with 18 ft. perf guns. RIH correlate to short jt. run to setting depth set CFP @ Ft. PU perforate @ 5324-5342, 3 JSPF, 120 phasing, 29 gram charges, .370 holes. POOH turn well to frac.

6:10 PM

HES Frac stage 8 North Horn 60Q foam frac. Load & break @ 3,585 PSI @ 18.1 BPM. Avg. Wellhead Rate: 28.24 BPM . Avg. Slurry Rate: 13.92 BPM. Avg. CO2 Rate: 12.93 BPM. Avg. Pressure: 3,895 PSI. Max.Wellhead Rate: 29.74 BPM. Max. Slurry Rate: 16.68 BPM. Max. CO2 Rate: 17,85 BPM. Max. Pressure: 4,287 PSI.. Total Fluid Pumped: 17,844 Gal. Total Sand in Formation: 64,300 lb. (20/40 White Sand) CO2 Downhole: 80 tons. CO2 Cooldown: 7 tons. ISIP:3,105 PSI. Frac Gradient: 1.02 psi/ft. Successfully flushed wellbore with 50Q foam 50 bbl over flush with

500 gal. fluid cap.

SI.

7:00 PM

11:59 PM Flow stages 1-8 through Opsco flow equipment.



Well Name: Prickly Pear Fed. #2-28D-12-15

Phase/Area

West Tavaputs

Bottom Hole Display	API #/License
NWNE-28-12S-15E-W26M	43-007-31362

Ops Date: 8/25/2008

Report #:

6

AFE #: 14743D

Summary: Flow stages 1-4 shut in

End Time

Description

6:00 AM

flow stages 1-4 FCP: 320 psi on 48 ck. recovered 223 bbl in 24

hours CO2 20% Gas rate: 1.324 MMCFD

8:30 AM

stage 1-4 FCP: 295 on 48 ck. recovered 37 bbl.

11:59 PM

Shut in flowing casing psi under 300 psi. hole psi for frac.

Well Name: Prickly Pear Fed. #2-28D-12-15

Phase/Area

West Tavaputs

Bottom Hole Display	API #/License
NWNE-28-12S-15E-W26M	43-007-31362

Ops Date: 8/24/2008

Report #:

AFE #: 14743D

Summary: Flow stages 1-4 through Opsco flow

equip,

**End Time** 

Description

6:00 AM

Flow stages 1-4 through Opsco flow equip. FCP: 1070 on 34 ck

recovered 908 bbl in 10.5 hours

6:00 AM

flow stages 1-4



Well Name: Prickly Pear Fed. #2-28D-12-15

Phase/Area

West Tavaputs

Bottom Hole Display	API #/License
NWNE-28-12S-15E-W26M	43-007-31362

Ops Date: 8/23/2008

Report #:

AFE #: 14743D

Summary: SI. Black Warrior EL stage 1. P.R. HES

frac stage 1. BWWC EL stage 2. HES frac stage 2. Problems with HES equipment had to cut sand and flush frac 53.6% of frac in formation. HES work on Blender. El stage 3. Frac #3. El stage 4. frac #4. Si. Flow stages 1-4 through Opsco flow equipment.

**End Time** 

8:30 AM

7:00 AM

SI.

BWWC EL stage 1 Price River. PU 15 ft. perf guns. RIH correlate to short it, run to perf depth check depth to casing collar, Perforate @ 7267-7282, 3 JSPF, 120 phasing, 29 gram charges, .370 holes.

Description

POOH turn well to frac.

10:10 AM

HES Frac stage 1 Price River 70Q foam frac. Load & Break @ 3,440 PSI @ 10.5 BPM. Avg. Wellhead Rate: 33.7 BPM. Avg. Slurry Rate: 13.7 BPM. Avg. CO2 Rate: 18.5 BPM. Avg. Pressure: 4,866 PSI. Max. Wellhead Rate: 35.3 BPM. Max. Slurry Rate: 17.8 BPM. Max. Co2 Rate: 22.2 BPM. Max. Pressure: 5,261 PSI. Total Fluid Pumped: 22,202 Gal. Total Sand in Formation: 90,000 lb. (20/40 White Sand) CO2 Downhole: 138 tons. CO2 Cooldown: 10 tons. ISIP: 2,770 PSI. Frac Gradient: 0.82 psi/ft. Successfully flushed wellbore with 50Q foam 50 bbl over flush with 500 gal. fluid сар.

11:30 AM

BWWC El stage 2 Price River. PU 15 ft. perf gun with HES CFP RIH correlate to short jt. run to setting depth set CFP @ 7200 ft. PU Perforate @ 7142-7145, 7117-7120, 7078-7084 & 7053-7056. 3JSPF, 120 phasing, 29 gram charges, .370 holes. POOH turn well

12:30 PM

HES frac stage 2 Price River 70Q foam frac. Load & break @ 5,275 PSI @ 16.8 BPM. Avg. Wellhead Rate:37.7 BPM. Avg. Slurry Rate:14.9 BPM. Avg. CO2 Rate: 21,3 BPM. Avg. Pressure:5,263 PSI. Max. Wellhead Rate:43.7 BPM. Max. Slurry Rate:19.8 BPM. Max. CO2 Rate:26.9 BPM. Max. Pressure: 6,369 PSI. Total Fluid Pumped:23.063 Gal. Total Sand in Formation: 67.500 lb.(20/40 White sand) Cut sand went to flush due to HES equipment problems. Pump rate jumping 3 to 4 BPM. Sand jumping 1/2 to 3/4 lb. pressure increasing. CO2 Downhole: 131 tons. CO2 Cooldown: 8 tons. ISIP:2,810 PSI Frac Gradient: 0.83 psi/ft. Successfully flushed wellbore with 50Q foam 50 bbl over flush with 500 gal.

2:30 PM

BWWC El stage 3 Price River. PU HES CFP with 8 ft. perf guns. RIH correlate to short it. run to setting depth set CFP @ 7030 ft. PU perforate P.R. @ 6978-6982 & 6936-6940, 3JSPF, 120 phasing, 29

gram charges, .370 holes. POOH turn well to frac.

Page 5



Well Name: Prickly Pear Fed, #2-28D-12-15

Phase/Area

West Tavaputs

Bottom Hole Display	API #/License
NWNE-28-12S-15E-W26M	43-007-31362

Ops Date: 8/23/2008

Report #:

AFE #: 14743D

Summary: SI. Black Warrior EL stage 1. P.R. HES frac stage 1, BWWC EL stage 2, HES frac stage 2. Problems with HES equipment had to cut sand and flush frac 53.6% of frac in formation. HES work on Blender. El stage 3. Frac #3. El stage 4. frac #4. Si. Flow stages 1-4 through

Opsco flow equipment.

**End Time** 3:45 PM

Description

Hes Frac stage 3 Price River 70Q foam frac. Load & break @ 4,767 PSI @ 14.3 BPM. Avg. Wellhead Rate: 33.3 B PM. Avg. Slurry Rate: 13.7 BPM. Avg. Co2 Rate: 18.1 BPM. Avg. Pressure: 5,234 PSI. Max. Wellhead Rate: 35.2 BPM. Max. Slurry Rate: 17.7 BPM. Max. Co2 Rate:22.2 BPM. Max. Pressure: 5,665 PSI. Total Fluid Pumped: 16,505 Gal. Total Sand in Formation: 57,000 lb. (20/40 White Sand) CO2 Downhole: 98 tons. CO2 Cooldown: 10 tons. ISIP:2,808 PSI. Frac Gradient: 0.84 psi/ft. Successfully flushed wellbore with 50Q foam 50 bbl over flush with 500 gal. fluid cap.

5:30 PM

BWWC EI stage 4 Lower Dark Canyon. PU HES CFP with 15 ft. perf guns. RIH correlate to short jt. run to setting depth set CFP @ 6910 ft. PU perforate @ 6872-6887, 3 JSPF, 120 phasing, 29 gram

charges, .370 holes. POOH turn well to frac.

6:30 PM

HES frac stage 4 Lower Dark Canyon. Load & Break @5,455 PSI. @ 16 BPM. Avg. Wellhead Rate: 33.5 BPM. Avg. Slurry Rate: 13.5 BPM. Avg. CO2 Rate: 18.5 BPM. Avg. Pressure: 5,371 PSI. Max. Wellhead Rate:34.9 BPM. Max. Slurry Rate:17.3 BPM. Max. CO2 Rate: 21.7 BPM. Max. Pressure: 5.907 PSI. Total Fluid Pumped: 19,600 Gal. Total Sand in Formation: 90,000 lb. (20/40 White Sand) CO2 Downhole: 135 tons. CO2 Cooldown: 10 tons. ISIP:3,190 PSI. Frac Gradient: 0.90 psi/ft. Successfully flushed wellbore with 50Q

foam 50 bbl over flush with 500 gal fluid cap.

5:30 PM

Well Name: Prickly Pear Fed. #2-28D-12-15

Phase/Area

West Tavaputs

Bottom Hole Display	API #/License
NWNE-28-12S-15E-W26M	43-007-31362

Ops Date: 8/22/2008

Report #:

3

AFE #: 14743D

Summary: SI. Rig HES frac Iron to frac tree. Change

out Blenders.

**End Time** 

Description

5:00 PM 6:00 PM

Rig HES iron to frac tree

8:00 PM

11:59 PM

rig down Blender. Rig in new Blender.

SDFN

#### tfallang CONFIDENTIAL

# **UNITED STATES**

#### DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

			V
RORMAI	RROVE	n [	D. Year.
OMB No.	1004-013	37.1	الأسائ
Expires: It	1v 31 20	10	

BURI	EAU OF LAND MANAGEMENT		5. Lease Serial No. UTU-73670	
Do not use this fo	OTICES AND REPORTS ON W orm for proposals to drill or to Jse Form 3160-3 (APD) for suc	re-enter an	6. If Indian, Allottee or N/A	Tribe Name
	IN TRIPLICATE - Other instructions on	page 2.	7. If Unit of CA/Agreen Prickly Pear Unit / UT	•
l. Type of Well ☑ Gas W	ell Other		8. Well Name and No. Prickly Pear Unit Fed	eral 2-28D-12-15
2. Name of Operator Bill Barrett Corporation	·		9. API Well No. 43-007-31362	
3a. Address 1099 18th Street, Suite 2300, Denver, CO 8020	2	(include area code)	10. Field and Pool or Ex Nine Mile/Wasatch-M	•
4. Location of Well (Footage, Sec., T., I WWNE, 650' FNL, 1412' FEL Sec. 28, T12S-R15E, S.L.B.&M.	303-312-8134 R.,M., or Survey Description)		11. Country or Parish, S Carbon County, UT	
12. CHEC	K THE APPROPRIATE BOX(ES) TO INDI	CATE NATURE OF N	OTICE, REPORT OR OTHE	R DATA
TYPE OF SUBMISSION		TYPE OF	ACTION	
Notice of Intent  Subsequent Report	Casing Repair New C	re Treat	Production (Start/Resume) Reclamation Recomplete Temporarily Abandon	Water Shut-Off Well Integrity Other Revised facility layout and oil
Final Abandonment Notice	Convert to Injection Plug B	<del>,,,,,,,</del>	Water Disposal	measurement
determined that the site is ready for This sundry is being submitted as not (consisting of the 1-28, 5-27D, 8-28). June and July of 2008, BBC drilled witihin the Prickly Pear unit and with Field Office, the new equipment and (1) 400-bbl oil tank - Combined oil to (1) 400-bbl water tank - Combined vor (1) 400-bbl blowdown tank (1) 400-bbl test tank.  To allocate oil production, a quarter	otification that the facility equipment and D, and 9-28D) were drilled in 2007 and a (currently awaiting completion) four addition a Participating Area except for the Prior measurement for this pad will be as followant for all wells except for the 9-28D are Prickly Pear 9-28D	oil measurement for the list wells currently productional wells (2-28D, 16 ckly Pear 9-28D. Per cows:	nis pad has changed. The uce except for the 9-28D, w X-21D, 5A-27D, and 1A-28 a discussion and verbal ar COPY St Date:	Prickly Pear 1-28 pad wells which is waiting on completion. In BD) off of this pad. All wells are oproval with Matt Baker, Vernal ENT TO OPERATOR  D. 14.2008  T. a 24-hour time period into the RECEIVED
		<u> </u>		SEP 1 5 2008
14. I hereby certify that the foregoing is to Name (Printed/Typed)  Tracey Fallang	rue and correct.	Title Environmental	/Regulatory Analyst	DIV. OF OIL, GAS & MINING
Signature MM	Fallanez	Date 09/10/2008		
	THIS SPACE FOR FEDE	RAL OR STATE	OFFICE USE	
Approved by *	Whit	Title	troleum Engineer	October 8, 2008
	<ul> <li>Approval of this notice does not warrant or of title to those rights in the subject lease which we thereon.</li> </ul>		ah Division of Oil, Gas a	nd Mining
Title 18 U.S.C. Section 1001 and Title 43	U.S.C. Section 1212, make it a crime for any p	erson knowingly and will	fully to make to any departmen	t or agency of the United States any false,

fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

# tfallang

#### **UNITED STATES** DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

COPY	/
OMB No. 1004-0137	

2010

	Expires:	July	31	, 2
ease Serial No.				

5. Lease Seria UTU-73670

SUNDRY NO Do not use this fo abandoned well. U	OTICES AND REPOR TIME for proposals to Se Form 3160-3 (AP	drill or to r	e-enter an	la f	6. If Indian, Allottee or N/A	Γribe	Name
SUBMIT	IN TRIPLICATE - Other in	nstructions on p	age 2.		7. If Unit of CA/Agreem Prickly Pear Unit / UT		
1. Type of Well  Oil Well  Gas We	ll Other				8. Well Name and No. Prickly Pear Unit Fed		
2. Name of Operator Bill Barrett Corporation					9. API Well No. 43-007-31362		
3a. Address 1099 18th Street, Suite 2300, Denver, CO 80202		303-312-8134	nclude area coa	e)	10. Field and Pool or Ex Nine Mile/Wasatch-M	•	•
4. Location of Well <i>(Footage, Sec., T.,R.</i> NWNE, 650' FNL, 1412' FEL Sec. 28, T12S-R15E, S.L.B.&M.	,M., or Survey Description)				11. Country or Parish, S Carbon County, UT	tate	
12. CHECK	THE APPROPRIATE BOX	K(ES) TO INDIC	ATE NATURE	OF NOT	TICE, REPORT OR OTHE	R DA	TA
TYPE OF SUBMISSION			TYI	E OF A	CTION		
Notice of Intent  ✓ Subsequent Report	Acidize Alter Casing Casing Repair	Deepen Fractur New C		Re	oduction (Start/Resume) eclamation ecomplete		Water Shut-Off Well Integrity Other Weekly Activity
Final Abandonment Notice	Change Plans Convert to Injection	Plug ar	id Abandon	-	emporarily Abandon ater Disposal		Report
Attach the Bond under which the we following completion of the involve testing has been completed. Final A determined that the site is ready for Weekly completion activity reports from the state of th	d operations. If the operatio bandonment Notices must be final inspection.)	n results in a mu e filed only after	ltiple completion all requirement	n or reco	mpletion in a new interval,	a For	m 3160-4 must be filed once
I hereby certify that the foregoing is tr Name (Printed/Typed)  Tracey Fallang	ue and correct.		Title Environ	nental/R	Regulatory Analyst		
Signature Juan	Fallaney	<b>&gt;</b>	Date 10/09/2	800			
	THIS SPACE	FOR FEDE	RAL OR ST	ATE C	FFICE USE		
Approved by  Conditions of approval, if any, are attached that the applicant holds legal or equitable tentitle the applicant to conduct operations	itle to those rights in the subjecthereon.	ct lease which wo	uld Office	3		Date	DECEMBER :
Title 18 U.S.C. Section 1001 and Title 43	U.S.C. Section 1212, make it a	to muc for any pe	reon whomidia a	ara williu	ny to make to any departmen	ստւա	gency of the United States any false,

UCT 1 4 2008



Well Name: Prickly Pear Fed. #2-28D-12-15

Phase/Area

West Tavaputs

Bottom Hole Display	API #/License
NWNE-28-12S-15E-W26M	43-007-31362

Ops Date: 10/1/2008

Report #:

Ω

AFE #: 14743D

Summary: MISU Equip. & RU same

End Time

Description

7:00 AM

Crew Travel

7:30 AM

Safety Mtg. & Review JSA's

11:30 AM

trucks. - Trucks broke down.

6:30 PM

Unload trks. - Put annular on BOP - Unload tbg. on racks - RU Air & N2 units - lay pump lines etc. - Change out valves on mud tank. -

SDFN

7:30 PM



Well Name: Prickly Pear Fed. #2-28D-12-15

Phase/Area

West Tavaputs

Bottom Hole Display	API #/License
NWNE-28-12S-15E-W26M	43-007-31362

Ops Date: 10/3/2008

Report #:

AFE #: 14743D

Summary: DO CFP's w/ mud motor

End Time

Description

7:00 AM

7:30 AM

Crew Travel

Safety Mtg. & Review JSA's

8:30 AM

FCP - 200 psi - PU 4 its. - RU pwr. swivel

5:00 PM

Start air/ N2 units - Est. circ. - DO plug @ 5250' - PU 5 jts. - DO plug @5420' - PU 5 jts. - DO plug @ 5590' - PU 26 jts. -DO plug @ 6400' - PU 13 jts. - DO plug @ 6820'

6:00 PM

Circ. hole clean - Kill tbg.

8:00 PM

Crew Travel

7:00 PM

POOH w / 53 jts.

Well Name: Prickly Pear Fed. #2-28D-12-15

Phase/Area

West Tavaputs

Bottom Hole Display	API #/License
NWNE-28-12S-15E-W26M	43-007-31362

Ops Date: 10/2/2008

Report #:

10

AFE #: 14743D

Summary: ND/NU BOP - PU BHA TIH DO Plugs

End Time

7:00 AM

Crew Travel

7:30 AM

Safety Mtg. & Review JSA's

10:00 AM

FCP - 200 psi. - Add spool to BOP'es - Pump 40 bbls. to kill well -

ND Tree / NU BOP'es

10:30 AM

RU Floor & Tbg. equip.

6:00 PM

MU BHA & PU 2 ea. 3 1/8" DC's, X-over & 155 jts. 2 3/8" tbg. -

Description

SDFN.

7:00 PM



Well Name: Prickly Pear Fed. #2-28D-12-15

Phase/Area

West Tavaputs

Bottom Hole Display	API #/License
NWNE-28-12S-15E-W26M	43-007-31362

Ops Date: 10/5/2008

Report #:

AFE #: 14743D

Summary: Fish Tbg. - POOH & LD Mud motor

**End Time** 

Description

7:00 AM

7:30 AM

Safety Mtg. & Review JSA's

8:30 AM

SICP - 550 psi. - Change out annular element

9:30 AM

MU Overshot - Latch onto fish - Pull up to floor - Release overshot -

LD jt. w / galled collar.

1:30 PM

POOH w / tbg, & DC's - LD mud motor & X-overs

5:00 PM

MU bit & bit sub - TIH w / 198 jts. tbg. - SWIFN

6:00 PM

Crew Travel

Well Name: Prickly Pear Fed. #2-28D-12-15

Phase/Area

West Tavaputs

Bottom Hole Display	API #/License
NWNE-28-12S-15E-W26M	43-007-31362

Ops Date: 10/4/2008

Report #:

AFE #: 14743D

Summary: Circ. & DO CFP's

End Time

Description

7:00 AM

7:30 AM

Safety Mtg. & Review JSA's

8:00 AM

FCP - 200 psi - PU 56 its.

11:00 AM

PU pwr. swivel - Start air & N2 - Could not break circ. - Shut down air

/ N2 units - pump 10 bbls. to top kill well - Hang back pwr. swivel

12:00 PM

Crew Travel

6:30 PM

RIH w / 20 jts. - PU pwr. swivel - Break circ. - Start DO on CFP @ 6910' - PU 4 jts. - GIH tag plug - PU to start drilling & tbg. parted 1 jt.

down - Hang swivel - PU 2 jts, attempt to screw into tbg., did not

work - LD jt. - SWIFN.

2:00 PM

Break circ. - Blow well around to unload fluid

7:30 PM



Well Name: Prickly Pear Fed. #2-28D-12-15

Phase/Area

West Tavaputs

Bottom Hole Display	API #/License
NWNE-28-12S-15E-W26M	43-007-31362

Ops Date: 10/7/2008

Report #:

15

AFE #: 14743D

Summary: Finish TIH - ND BOP / NU Tree -

**RDMOSU** 

End Time

Description

7:00 AM

7:30 AM

Safety Mtg. & Review JSA's

8:00 AM

SICP - 800 psi. - TIH w / 48 Jts. 2 3/8" tbg. - Install hanger & land

hanger.

Crew Travel

10:30 AM

ND BOP / NU Tree - RU tbg. flowline - RD floor & allied equip.

6:00 PM

RD rig & allied equip. - Move rig & equip. to PPF #9 - 28D. - RU rig

& equip. - Move tbg. to racks - SDFN.

7:00 PM

Crew Travel

Well Name: Prickly Pear Fed. #2-28D-12-15

Phase/Area

West Tavaputs

Bottom Hole Display	API #/License
NWNE-28-12S-15E-W26M	43-007-31362

Ops Date: 10/6/2008

Report #:

14

AFE #: 14743D

Summary: Finish DO two plugs & CO to PBTD

End Time

Description

7:00 AM

Crew Travel

7:30 AM

Safety Mtg. & Review JSA's

8:30 AM

SICP - 800 psi. - SITP - 550 psi. - Kill tbg. w/ 10 bbls. Install string

float - RU Air / N2 units & Break circ.

9:00 AM

3:00 PM

PU pwr. swivel - Break circ. - DO plug @ 7030' - PU 5 jts. - DO plug

@ 7200' - PU 4 its. - to PBTD @ 7340' - Circ. hole clean.

4:00 PM

LD 73 jts. on racks.

5:30 PM

POOH w/ 153 jts.2 3/8" tbg. - LD 2ea. 3 1/8" DC's. - BO bit & bit sub

7:00 PM

TIH w/ 105 jts. 2 3/8" tbg. - SWIFN

8:00 PM

UNITED STATES
DEPARTMENT OF THE INTERIOR

CONFIDENTIAL

FORM APPROVED OMB NO. 1004-0137 Expires: July 31, 2010

DEPARTMENT OF THE INTERIOR	OMB NO. 1004
BUREAU OF LAND MANAGEMENT	Expires: July 31, 2
FIL COMPLETION OF RECOMPLETION VALORINATION MADE A	5. Lease Serial No. UTU-73670

							-							
la. Type of V		□oil W	ell <b>Z</b> G	as Well	Dry Deepen	Other	□ Die	f Decur			6. II N/A		Allottee or T	Tribe Name
b. Type of C	completion:					Fing Dack	<b>L.</b> Dii.	i. Resvi.,			7. U	nit or C		t Name and No.
2. Name of C	Operator	Other.				······································			······································		8. L	ease Na	ar / UTU-79 me and Well	No.
Bill Barrett	Corporation					la <sub>0</sub>	Dhana	No Guale	ide area co	do)		kly Pea FI Well		eral 2-28D-12-15
	Denver, CO 8	30202				30	03-312-		ae area co	ue)	43-0	007-31	362	
4. Location of	of Well (Re	port locatio	n clearly and	l in accord	lance with Federa	ıl requiremen	ts)*						d Pool or Ex Wasatch-I	ploratory Mesaverde
At surface	NWNE.	350' FNL	1412' FEL										R., M., on B	lock and
		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,									'	Survey o	or Area Sec. 2	28, T12S-R15E
At top pro	d. interval re	eported belo	w NWNE,	615' FNL	., 2462' FEL Se	ec. 28					12.	County	or Parish	13. State
At total de	nth NWNI	E, 584' FN	L, 2498' FI	EL, Sec. 2	28						Car	bon Co	unty	UT
14. Date Spi	ıdded		15. Date T.		d		ate Com		9/07/2008 eady to Pro			Elevatio 5' GL	ns (DF, RK)	B, RT, GL)*
05/28/2008 18. Total De		7464'	06/15/20		ig Back T.D.:	MD 7407'	ם אאען.		20. Depth		Plug Set:	MD N	I/A	
	TVI	7264'		<u> </u>		TVD 7207'			22. Was w	ell core		TVD	Yes (Submit	analysis)
21 Type El Triple Com				(Submit co)	py or each)			ľ	Was D	ST run?	<b>☑</b> N	6 🗖	Yes (Submit	report)
23. Casing				sat in wa	7)				Direct	onal Su	rvey? N	0 7	Yes (Submit	copy)
Hole Size	Size/Gra	· · · · · · · · · · · · · · · · · · ·		p (MD)	Bottom (MD)	Stage Ce			of Sks. &		urry Vol. (BBL)	Ceme	ent Top*	Amount Pulled
20"	16" H40	65#	0	·F ()	40'	Dep	un	arout c	of Cement ement	<u></u>	(DDL)	Surfac	æ	
12 1/4"	9 5/8" J-		0	<del></del>	1515'			-	emium A	111	bbls	Surfac		
	0.0.0	30   00		<del></del>					<del></del>					
8 3/4" &	4 1/2" I-1	00 11.6	# 0 .		7451'			1610 5	0/50 Poz	427	bbls	870	•	
7 7/8"														
	<u></u>			· · · · · · · · · · · · · · · · · · ·				<u></u>		1	. :			
24. Tubing Size		et (MD)	Packer Dept	h (MD)	Size	Depth Set	t (MD)	Packer I	Depth (MD)	Ι	Size	Dept	h Set (MD)	Packer Depth (MD)
25. Produci			-		Dottom		foration forated In			Size	No. I	Toles	I	Perf. Status
A) Wasato	Formation th (incl Not		5165'	op	Bottom 6305'	5165' - 5		icci vai	0.3		30	10103	Open	1 OII. Status
B) Mesa V			6717'		7282'	5324' - 5	····		0.3	7"	54		Open	
<u>C)</u> .			·   -			5480' - 5	490'		0.3	7"	30		Open	
D)						5842' - 6	305'		0.3	7"	30		Open	
27. Acid, Fr			ent Squeeze,	etc.				Amount a	nd Type of	Materia	al	:		
5165' - 51	Depth Interv 75'	/aı	Stage 9	: 70% C	O2 foam frac:	95 tons CO						sand		
5324' - 53		*	Stage 8	: 70% C	O2 foam frac:	30 tons CO	2; 544 b	bls total	fluid; 64,	300# 2	20/40 White	sand		
5480' - 54			Stage 7	': 70% C	O2 foam frac:	51 tons CO	2; 400 b	bls total	fluid; 36,	300#	20/40 Whit	e sand		
5842' - 63			Stage 6	: 70% C	O2 foam frac:	210 tons CC	02; 951	bbls tota	al fluid; 14	4,500	# 20/40 Wh	nite san	ıd	
28. Product Date First		l A Hours	Test	Oil	Gas	Water	Oil Gra	vitv	Gas	Į.	roduction M	ethod		<del> </del>
Produced	1	Tested		BBL		BBL	Corr. A		Gravity		Flowing			
8/27/08	9/07/08	24	<b>→</b>	1.0	629	0.02								
Choke	Tbg. Press.		24 Hr.	Oil BBL	1 "	Water BBL	Gas/Oil Ratio		Well Sta					
Size	Flwg. SI	Press.	Rate				Tutto		·	ung				
30/64"	0	225		1.0	629	0.02	<u></u>		٠				<del></del>	
28a. Produc Date First		Hours	Test	Oil		Water	Oil Gra		Gas	F	roduction M	ethod		
Produced		Tested	Production	BBL	MCF	BBL	Corr. A	PΙ	Gravity					
<u> </u>	77		24 **	0:1	Con	Water	Gas/Oil		Well St		, , , , , , , , , , , , , , , , , , ,			
Choke Size	Tbg. Press. Flwg.	Csg. Press.	24 Hr. Rate	Oil BBL		Water BBL	Ratio	L	wen st	ZLUD	i	REC	CEIVE	:n
	SI	1	-						İ			11	JLIVE	ـ الـــــــــــــــــــــــــــــــــــ
*(See inst	I ructions and	spaces for	additional da	l ta on page	2)		1					ÜÜT	2 / 200	18
		_												

28b. Prod	uction - Inte	erval C	· · · · · · · · · · · · · · · · · · ·							· · · · · · · · · · · · · · · · · · ·
Date First Produced		Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method	
Choke Size	Tbg. Press Flwg. SI	. Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status		
	uction - Inte									
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method	
Choke Size	Tbg. Press Flwg. SI	. Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status		
29. Dispos	sition of Ga	ıs (Solid, u	sed for fuel, ve	ented, etc.)					<del></del>	
Show a	all importan	t zones of	(Include Aqui porosity and c ed, cushion use	ontents the	ereof: Cored ol open, flowi	intervals and all ing and shut-in p	drill-stem tests, pressures and	31. Formation	on (Log) Markers	
Form	nation	Тор	Bottom		Desc	criptions, Conter	nts, etc.		Name	Top  Meas. Depth
		,,,,,						Wasatch North Horn Dark Canyon Price River		2984' 4993' 6697' 6900'
								TD		7464'
Copies o	of logs pre	viouslv s	e plugging pro ubmitted und na has not b	der separ	ate cover.	In the event lo	og copies were r report will be su	not received, ple	ease contact Jim Kinser at	t 303-312-8163. 7 7/8"
33. Indica	te which ite	ems have t	een attached b	y placing	a check in the	appropriate box	es:		·	
		-	s (1 full set req	•		Geologic Report Core Analysis	DST R		☑ Directional Survey	
34. I here	by certify th	nat the fore	egoing and atta	ched infor	mation is con	plete and correc	et as determined fro	om all available re	cords (see attached instruction	s)*
N	ame (please	e print) T	racey Fallan	g			<del>,</del>	ory Analyst		
S	ignature	<i>بلا</i>	acy	Tall.	anej		Date 10/24/200	08		
Title 18 U false, ficti	.S.C. Section	on 1001 an	d Title 43 U.S tements or rep	.C. Section	1212, make i	it a crime for any atter within its ju	y person knowingly irisdiction.	y and willfully to n	nake to any department or age	ncy of the United States any
	d on page 3						77.5			(Form 3160-4, page 2)

# Prickly Pear Unit Federal #2-28D-12-15 Report Continued

26. PERFOI	26. PERFORATION RECORD (cont	RD (cont.)				27. ACID, FR	ACTUE	E, TREATM	ENT, CE	27. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC. (cont.)	E, ETC. (con	(1)
INI	INTERVAL		NO.	PERFORATION								
(Top/	(Top/Bot-MD)	SIZE	HOLES	STATUS		,	AM	<b>IOUNT AND</b>	TYPE O	AMOUNT AND TYPE OF MATERIAL		
6717	6742,	0.37"	75	Open	Stg 5	70% CO2 foam frac:	135	tons CO2	715	bbls total fluid		86,900# 20/40 White Sand
6872,	.488	0.37"	45	Open	Stg 4	70% CO2 foam frac:	135	tons CO2	614	bbls total fluid	#000'06	20/40 White Sand
6936	6982,	0.37"	24	Open	Stg 3	70% CO2 foam frac:	86	tons CO2	558	bbls total fluid	27,000#	20/40 White Sand
7053	7145	0.37"	45	Open	Stg 2	70% CO2 foam frac:	131	tons CO2	712	bbls total fluid	#005'.29	20/40 White Sand
7267	7282	7737	45	Open	Stg 1	Stg 1 70% CO2 foam frac:	138	tons CO2	683	bbls total fluid	#000,06	20/40 White Sand

\*Depth intervals for frac information same as perforation record intervals.

# **Directional Surveys**



Location Information

**Business Unit** 

Operations

Project Uinta

Phase/Area West Tavaputs Well Name

Prickly Pear Fed. #2-28D-12-15

Surface Location

NWNE-28-12S-15E-W26M

Main Hole

<b>Bottom Hole Information</b>	
UWI	API / License #
NWNF-28-12S-15E-W26M	43-007-31362

Survey Section I	<u>Details</u>				
Section	KOP (ft)	KOP Date	TMD (ft)	TVD (ft)	TD Date
Main	1575.00	6/9/2008	1575.00	1575.00	

Survey Information		
Survey Company	Direction of Vertical Section (°)	Magnetic Dec. Correction (°)
WEATHERFORD	270.68	11.77

Extrap.	Depth MD	Inclination	Azimuth	TVD	Sub Sea	Northings	N/S	Eastings	E/W	Vertical Section	Dog Leg
extrap.	(ft)	(°)	(°)	(ft)	(ft)	(ft)		(ft)		(ft)	
	0.00	0.00	0.00	0.00	17.00	0.00	N	0.00	E	0.00	0.00
	1587.00	0.23	283.06	1586.99	-1569.99	0.72	N	3.10	W	3.11	0.01
	1684.00	1.75	256.62	1683.97	-1666.97	0.42	N	4.73	W	4.74	1.60
	1780.00	3.63	267.99	1779.85	-1762.85	0.02	S	9.20	W	9.20	2.03
	1876.00	5.81	276.24	1875.51	-1858.51	0.40	N	17.06	W	17.07	2.37
	1972.00	8.19	272.74	1970.77	-1953.77	1.25	N	28.72	W	28.74	2.52
	2069.00	10.44	270.87	2066.48	-2049.48	1.72	N	44.41	W	44.43	2.34
	2165.00	12.31	267.99	2160.58	-2143.58	1.49	N	63.34	W	63.35	2.04
	2261.00	14.06	266.12	2254.04	-2237.04	0.34	N	85.20	W	85.20	1.88
	2358.00	16.00	264.49	2347.70	-2330.70	1.74	S	110.26	W	110.23	2.05
	2454.00	18.38	265.62	2439.40	-2422.40	4.17	S	138.52	W	138.46	2.50
	2550.00	20.94	267.24	2529.78	-2512.78	6.15	S	170.75	W	170.66	2.73
	2646.00	23.13	268.37	2618.75	-2601.75	7.51	S	206.73	W	206.63	2.32
	2742.00	25.13	269.49	2706.35	-2689.35	8.23	S	245.96	w	245.85	2.14
	2839.00	24.31	271.12	2794.46	-2777.46	8.02	S	286.52	W	286.40	1.10
	2935.00	24.81	269.74	2881.77	-2864.77	7.73	s	326.42	W	326.30	0.79
	3031.00	25.44	269.87	2968.68	-2951.68	7.87	s	367.18	W	367.06	0.66
	3127.00	26.44	269.12	3055.01	-3038.01	8.24	S	409.17	W	409.04	1.10
	3223.00	26.69	268.24	3140.87	-3123.87	9.23	s	452.09	W	451.94	0.49
	3319.00	26.06	267.74	3226.88	-3209.88	10.72	S	494.71	w	494.54	0.70
	3416.00	26.31	267.12	3313.93	-3296.93	12.64	S	537.47	W	537.28	0.38
-	3510.00	25.44	265.74	3398.50	-3381.50	15.19	s ·	578.40	w	578.18	1.13
	3606.00	25.06	266.12	3485.33	-3468.33	18.10	s	619.25	W	618.99	0.43
	3702.00	25.25	267.12	3572.22	-3555.22	20.50	s	659.99	W	659.70	0.49
	3798.00	25.69	268.24	3658.89	-3641.89	22.17	S	701.23	w	700.92	0.68
	3895.00	25.31	271.74	3746.44	-3729.44	22.19	S	742.97	w	742.66	1.60
	3991.00	25.50	274.99	3833.16	-3816.16	19.77	s	784.07	w	783.78	1.47
	4087.00	24.50	274.24	3920.16	-3903.16	16.50	S	824.51	W	824.25	1.09
	4182.00	22.44	276.62	4007.29	-3990.29	12.95	s	862.16	W	861.95	2.39
	4278.00	20.50	279.24	4096.61	-4079.61	8.14	S	896.95	w	896.79	2.25
	4375.00	17.88	281.37	4188.20	-4171.20	2.48	S	928.32	w	928.22	2.80
	4471.00	15.31	285.12	4280.18	-4263.18	3.74	N	955.00	w	954.98	2.90
	4567.00	12.25	285.12	4373.38	-4356.38	9.70	N	977.07	W	977.11	3.19
	4663.00	10.69	283.87	4467.45	-4450.45	14.49	N	995.54	w	995.65	1.65
	4759.00	8.88	280.37	4562.05	-4545.05	17.96	N	1011.48	w	1011.62	1.98
	4856.00	6.94	282.12	4658.11	-4641.11	20.53	N	1024.57	W	1024.74	2.02
	4952.00	5.81	284.87	4753.51	-4736.51	23.00	N	1034.94	W	1035.14	1.22
	5048.00	4.19	291.62	4849.14	-4832.14	25.54	N	1042.89	w	1043.12	1.79
	5143.00	2.75	313.12	4943.95	-4926.95	28.37	N	1047.78	w	1048.05	2.02
	5239.00	2.06	352.24	5039.87	-5022.87	31.66	N	1049.70	W	1050.00	1.81
	5336.00	1.75	357.49	5136.81	-5119.81	34.87	N	1050.00	W	1050.34	0.37
	5431.00	1.50	353.99	5231.78	-5214.78	37.55	N	1050.00	W	1050.54	
	5528.00	1.31	346.49	5328.75	-5311.75	39.89	N	1050.19	W		0.28
	5624.00	1.25	345.49	5424.72	-5407.72	41.97	N	1050.56	W	1050.98 1051.53	0.27
	5720.00	1.25	335.37	5520.70	-5503.70	43.94	N	1051.10	W	1051.53	0.07

# **Directional Surveys**



Location Information

**Business Unit** 

Project Uinta

Operations

Phase/Area West Tavaputs Well Name

Prickly Pear Fed. #2-28D-12-15

Surface Location

NWNE-28-12S-15E-W26M

Main Hole

Extrap.	Depth MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Sub Sea (ft)	Northings (ft)	N/S	Eastings (ft)	E/W	Vertical Section (ft)	Dog Leg
	5816.00	1.25	330.99	5616.68	-5599.68	45.81	N	1052.75	W	1053.22	0.10
	5912.00	1.44	331.49	5712.65	-5695.65	47.78	N	1053.83	W	1054.32	0.20
	6008.00	1.63	327.99	5808.62	-5791.62	50.00	N	1055.13	W	1055.65	0.22
	6104.00	1.75	318.24	5904.57	-5887.57	52.25	N	1056.83	W	1057.37	0.32
	6200.00	1.88	317.74	6000.53	-5983.53	54.51	N	1058.86	W	1059.44	0.14
	6296.00	2.06	319.49	6096.47	-6079.47	56.99	N	1061.04	W	1061.65	0.20
	6392.00	1.88	317.99	6192.41	-6175.41	59.47	N	1063.22	W	1063.85	0.20
	6489.00	2.06	321.12	6289.35	-6272.35	62.01	N	1065.38	W	1066.04	0.22
	6585.00	1.75	321.27	6385.30	-6368.30	64.49	N	1067.38	W	1068.07	0.32
	6681.00	1.19	280.62	6481.27	-6464.27	65.82	N	1069.27	W	1069.98	1.20
	6776.00	1.19	269.62	6576.25	-6559.25	66.00	N	1071.23	W	1071.94	0.24
	6820.00	1.19	271.99	6620.24	-6603.24	66.01	N	1072.14	W	1072.85	0.11
	6870.00	1.19	271.99	6670.23	-6653.23	66.05	N	1073.18	W	1073.89	0.00
-	7464.00	1.19	271.99	7264.10	-7247.10	66.47	N	1085.51	w	1086.22	0.00

## tfallang CONFIDENTIAL

**UNITED STATES** DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED OMB No. 1004-0137

SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill or to re-enter an

Expires: July 31, 2010 5. Lease/Sérial No UTU-73670 6. If Indian Afforted or Tribe Name N/A

abandoned well.	Use Form 3160-3 (A	(PD) for such propo	sals.		
SUBMI	T IN TRIPLICATE - Other	r instructions on page 2.	····	7. If Unit of CA/Agree	ement, Name and/or No.
1. Type of Well			<u>-</u>	Prickly Pear Unit / U	TU-079487
Oil Well  Gas W	Vell Other			8. Well Name and No. Prickly Pear Unit Fe	deral 2-28D-12-15
Name of Operator     Bill Barrett Corporation				9. API Well No. 43-007-31362	· · · · · · · · · · · · · · · · · · ·
3a. Address		3b. Phone No. (include are	a code)	10. Field and Pool or E	Exploratory Area
1099 18th Street, Suite 2300, Denver, CO 8020		303-312-8134		Nine Mile/Wasatch-N	
4. Location of Well (Footage, Sec., T., NWNE, 650' FNL, 1412' FEL. Sec. 28, T12S-R15E, S.L.B.&M.	R., M., or Survey Description	)		11. Country or Parish, Carbon County, UT	State
12. CHEC	K THE APPROPRIATE BO	X(ES) TO INDICATE NAT	URE OF NOTIC	CE, REPORT OR OTHE	ER DATA
TYPE OF SUBMISSION		And the second s	TYPE OF ACT	TON	
✓ Notice of Intent	Acidize	Deepen	Prod	uction (Start/Resume)	Water Shut-Off
	Alter Casing	Fracture Treat	Recla	amation	Well Integrity
Subsequent Report	Casing Repair	New Construction	Reco	mplete	Other Pit Closure
- '	Change Plans	Plug and Abandon	Temp	porarily Abandon	Extension
Final Abandonment Notice	Convert to Injection	Plug Back	☐ Wate	er Disposal	
following completion of the involve testing has been completed. Final a determined that the site is ready for This sundry is being submitted to red to evaporate this pit in the Spring/Su sides and that there is sufficient free If you have any questions or need fu	Abandonment Notices must final inspection.)  quest an extension to the immer of 2009, with an exboard to account for addit	be filed only after all required 90-day pit closure/reclama tension request through S ional precipitation. A list o	nents, including ation COAs in the eptember 2009 of the additional	reclamation, have been ne APDs issued on thi	completed and the operator has
					<b>š</b>
					•
<ol> <li>I hereby certify that the foregoing is tree. Name (Printed/Typed)</li> </ol>	ue and correct.				
Tracey Fallang		Title Regu	latory Analyst		
Signature Hally	Fallany	Date //	128/08		
	THIS SPACE	FOR FEDERAL OR	STATE OFF	ICE USE	
Approved by					
		Title		D	ate
Conditions of approval, if any, are attached, that the applicant holds legal or equitable tile entitle the applicant to conduct operations the state of the s	le to those rights in the subject nereon.	not warrant or certify t lease which would Office			DEOEWED.
Title 18 U.S.C. Section 1001 and Title 43 U	J.S.C. Section 1212, make it a	crime for any person knowing	ly and willfully to	make to any department	or agency of the Onited States any false,
fictitious or fraudulent statements or repres	entations as to any matter wit	hin its jurisdiction.			MOVAA
(Instructions on page 2)					<del>NUV U 3 2008</del>

**WELL NAME** 

LEASE

Prickly Pear UF 2-28D-12-15	<u>UTU-73670</u>
Prickly Pear UF 16X-21D-12-15	UTU-73670
Prickly Pear UF 5A-27D-12-15	UTU-0137844
Prickly Pear UF 1A-28D-12-15	UTU-73670

### **UNITED STATES** DEPARTMENT OF THE INTERIOR

**BUREAU OF LAND MANAGEMENT** 

**SUNDRY NOTICES AND REPORTS ON WELLS** 

FORM APPROVED OMB No. 1004-0137

Expires: July 31, 2010

5. Lease Serial No.

see attached
6. If Indian, Allower Price Name N/A

	form for proposals to Use Form 3160-3 (API				YEIC	/
SUBMI  I. Type of Well	T IN TRIPLICATE - Other ins	structions on page 2.		If Unit of CA/Agreeme		or No.
Oil Well  Gas W	/ell Other		se	Well Name and No.	Fed 2-2	8D-12-15_
Name of Operator     Bill Barrett Corporation			9. 7	API Well No.		362
3a. Address	36	. Phone No. (include area co	de) 10.	Field and Pool or Exp		206
1099 18th Street, Suite 2300 Denver, CO 80202	30	03-312-8134	se	e attached/Wasatch	-Mesaverde	
4. Location of Well (Footage, Sec., T.,	R., M., or Survey Description)		11.	Country or Parish, Sta	ite	
see attached	25 15E	28	Ca	irbon County, UT		
	K THE APPROPRIATE BOX(I		E OF NOTICE, I	REPORT OR OTHER	DATA	
TYPE OF SUBMISSION		TY	PE OF ACTION	I		
Notice of Intent  ✓ Subsequent Report	Acidize Alter Casing Casing Repair	Deepen Fracture Treat New Construction	Productio Reclamati		Water Shut- Well Integr Other Rev	
	Change Plans	Plug and Abandon	Temporar	ily Abandon	measu	rement
Final Abandonment Notice	Convert to Injection	Plug Back	Water Dis	sposal		
testing has been completed. Final a determined that the site is ready for This sundy is being submitted as a funitial testing would occur (or has on After the initial test is performed, BBC between tests. Revised site security	final inspection.) ollow up to clarify testing/allocurred) as soon as possible at the control of	cation methods for the atta fter production is establish ting, testing each well for 7	ched wells.	pe a 1-3 day test to g	et a baseline t	or allocation
•						
				C	OPY SENT TO	OPERATOR
				Di	ate: 2124	1.2009
					itials: <u>K</u>	<u>ر</u> ک
14. I hereby certify that the foregoing is tr	ue and correct.		+	-	<del></del>	
Name (Printed/Typed) Tracey Fallang		Title Regulator	ry Analyst			
Signature Jacup	Fallany	Date 02/10/200	09			
	THIS SPACE FO	R FEDERAL OR STA	ATE OFFICE	USE		
Conditions of approval, if any, are attached that the applicant holds legal or equitable tile entitle the applicant to conduct operations the applicant to conduct the applicant the applicant to conduct the applicant the appli	le to those rights in the subject lea		t-Eng.	Date Federal Approval Action Is Nece	2//7 Of This ssary	1/09 RECEIVED
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1001 and			i willfully to mak	e to any department or a	gency of the Un	ted States any false

ttallang

CONFIDENTIAL

WELL NAME	FIELD	COUNTY	QTR/QTR	SEC	TWN-RNG	FOOTAGE CALLS		LEASE #	# OF TANKS			
PRICKLY PEAR U FED 1-28-12-15	NINE MILE CANYON	CARBON	NENE	28	12S-15E	805	N	1184	Е	UTU-73670	A STATE OF THE STA	
PRICKLY PEAR U FED 5-27D-12-15	NINE MILE CANYON	CARBON	NENE	28	12S-15E	795	_	1154	-	UTU-0137844		
PRICKLY PEAR U FED 8-28D-12-15	NINE MILE CANYON	CARBON	NENE	. 28	12S-15E	800	N	1169		UTU-73670	1	
PRICKLY PEAR U FED 9-28D-12-15	NINE MILE CANYON	CARBON	NENE	28	12S-15E	811	N	1199	Ε	UTU-73670	(2) Multiple Well Prod Tanks (1) Prod Tank (9-28D)	
RICKLY PEAR U FED 2-28D-12-15	NINE MILE CANYON	CARBON	NWNE	28	12S-15E	650	N	1412	E	UTU-73670	(1) Test Tank	
RICKLY PEAR U FED 5A-27D-12-15	NINE MILE CANYON	CARBON	NWNE	28	12S-15E	648	N	1380	E	UTU-0137844	(1) Blowdown Tank	
RICKLY PEAR U FED 16X-21D-12-15	NINE MILE CANYON	CARBON	NWNE	28	12S-15E	649	N	1396		UTU-73670		
RICKLY PEAR U FED 1A-28D-12-15	NINE MILE CANYON	CARBON	NWNE	28	12S-15E	648	N	1364	E			
PRICKLY PEAR U FED 11-15D-12-15	PRICKLY PEAR	CARBON	NENW	22	12S-15E	560	N	1992	w			
PRICKLY PEAR U FED 3-22-12-15	PRICKLY PEAR	CARBON	NENW	22	12S-15E	550	N	2039	-	UTU-011604		
PRICKLY PEAR U FED 5-22D-12-15	PRICKLY PEAR	CARBON	NENW	22	12S-15E	557	+		_	UTU-011604		
PRICKLY PEAR U FED 7-22D-12-15	PRICKLY PEAR	CARBON	NENW	22	12S-15E	553	N			UTU-011604	(3) Multiple Well Prod Tanks	
PRICKLY PEAR U FED 14-15D-12-15	PRICKLY PEAR	CARBON	NENW	22	12S-15E	712	+		_	UTU-65773	(1) Test Tank	
PRICKLY PEAR U FED 6-22D-12-15	PRICKLY PEAR	CARBON	NENW	22	12S-15E	716		2279		UTU-011604	(1) Blowdown Tank	
PRICKLY PEAR U FED 13-15D-12-15	PRICKLY PEAR	CARBON	NENW	22	12S-15E	719		2263				
PRICKLY PEAR U FED 4-22D-12-15	PRICKLY PEAR	CARBON	NENW	22	12S-15E	722		2247	_	UTU-011604		
PRICKLY PEAR UNIT 21-2	NINE MILE CANYON	CARBON	SWNW	21	12S-15E	1620	-	1247	-	UTU-73670		
RICKLY PEAR U FED 12-21D-12-15	NINE MILE CANYON	CARBON	SWNW	21	12S-15E	1609	277	1256		UTU-73670		
RICKLY PEAR U FED 11-21D-12-15	NINE MILE CANYON	CARBON	SWNW	21	12S-15E	1597	+	1266	_	UTU-73670	(4) 14 114 1 114	
RICKLY PEAR U FED 4-21D-12-15	NINE MILE CANYON	CARBON	SWNW	21	12S-15E	1585	1-1	1277		UTU-73670	(4) Multiple Well Prod Tanks (1) Test Tank	
RICKLY PEAR U FED 6-21D-12-15	NINE MILE CANYON	CARBON	SWNW	21	12S-15E	1574	1	1288		UTU-73670	(1) Blowdown Tank	
RICKLY PEAR U FED 3-21D-12-15	NINE MILE CANYON	CARBON	SWNW	21	12S-15E	1562	1	1298		UTU-73670		
RICKLY PEAR U FED 5-21D-12-15	NINE MILE CANYON	CARBON	SWNW	21	12S-15E	1550	+	1309	w	UTU-73670		
PRICKLY PEAR U FED 13-22-12-15	NINE MILE CANYON	CARBON	swsw	22	12S-15E	836	s	451		UTU-011604		
PRICKLY PEAR U FED 3-27D-12-15	NINE MILE CANYON	CARBON	swsw	22	12S-15E	815	s	475	T-22- A	UTU-0137844		
PRICKLY PEAR U FED 4-27D-12-15	NINE MILE CANYON	CARBON	swsw	22	12S-15E	825	s	463		UTU-0137844		
PRICKLY PEAR U FED 4A-27D-12-15	NINE MILE CANYON	CARBON	SWSW	22	12S-15E	848	s	471			( ( ) - resulting them inde intitle	
PRICKLY PEAR U FED 14-22D-12-15	NINE MILE CANYON	CARBON	swsw	22	12S-15E	858	s	459		UTU-0137844 UTU-011604	(1) Test Tank (1) Blowdown Tank	
PRICKLY PEAR U FED 11-22D-12-15	NINE MILE CANYON	CARBON	SWSW	22	12S-15E	869	S	447		UTU-011604 UTU-011604	( ) =	
PRICKLY PEAR U FED 12-22D-12-15	NINE MILE CANYON	CARBON	SWSW	22	12S-15E	879	S	447		UTU-011604 UTU-011604		
PRICKLY PEAR U FED 1-20-12-15	NINE MILE CANYON	CARBON	NENE	20	12S-15E	689	N					
PRICKLY PEAR U FED 8-20D-12-15	NINE MILE CANYON	CARBON	NENE	20	12S-15E	700		777		UTU-073669	(3) Multiple Well Prod Tanks	
"		CARBON	NENE	20	12S-15E	684	N	755		UTU-073669	(1) Test Tank	
	NINE MILE CANYON	CARBON	NENE	20	12S-15E	669	N	760		UTU-073669 UTU-073669	(1) Blowdown Tank	

#### tfallang CONFIDENTIAL

#### **UNITED STATES** DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

5. Lease Serial No. UTU-73670

6. If Indian, Allottee or Tribe Name

FORM APPROVED

OMB No. 1004-013

# SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this for abandoned well.				N/A			
SUBMIT	IN TRIPLICATE – Other	r instructions on	page 2.		7. If Unit of CA/Agreet Prickly Pear Unit / U		
1. Type of Well					8. Well Name and No.		
Oil Well	ell Other				Prickly Pear Unit Fed	leral 2-28D-12-15	
Name of Operator Bill Barrett Corporation					9. API Well No. 43-007-31362		
3a. Address 1099 18th Street, Suite 2300, Denver, CO 8020	3	3b. Phone No. (	include area co	de)	10. Field and Pool or E	•	
		303-312-8134			Nine Mile/Wasatch-M		
4. Location of Well (Footage, Sec., T., I NWNE, 650' FNL, 1412' FEL Sec. 28, T12S-R15E, S.L.B.&M.	R.,M., or Survey Description	n) 			11. Country or Parish, S Carbon County, UT	State	
12. CHEC	K THE APPROPRIATE BO	OX(ES) TO INDIC	CATE NATUR	E OF NOTIC	CE, REPORT OR OTHE	R DATA	
TYPE OF SUBMISSION			TY	PE OF ACT	ION		
Notice of Intent	Acidize	Deeper Deeper	1	Prod	uction (Start/Resume)	Water Shut-Off	
riodes of mone	Alter Casing	Fractur		Recla	amation	Well Integrity	
Subsequent Report	Casing Repair	New C	onstruction	Reco	mplete	Other Pit Evaporation	
	Change Plans		nd Abandon		porarily Abandon	Method	
Final Abandonment Notice	Convert to Injection	Plug B	ack	Wate	r Disposal		
testing has been completed. Final adetermined that the site is ready for This sundry is being submitted as no The evaporation system consists of speed and to shut the system down Evaporation operations are performe If you have any questions or need for	final inspection.)  otification that BBC will ut a portable pump with a so if wind speed exceeds 10 at third party contract.	ilize enhanced e uction hose and mph. Non-peri ctor and observe	vaporation me a discharge lii neable oversp d on a daily b	ethods to ev ne fitted with ray walls ar	raporate the contents on sprinkler nozzles. Ti	of the reserve pit. he pump is set to detect wind	
14. I hereby certify that the foregoing is to Name (Printed/Typed)	ue and correct.						
Tracey Fallang			Title Regulate	ory Analyst			
Signature Hacu	Fallanes		Date 05/26/20	009			
	THIS SPACE	FOR FEDER	RAL OR ST	ATE OF	FICE USE		
Approved by	V						
			Title		D	ate	
Conditions of approval, if any, are attached that the applicant holds legal or equitable ti entitle the applicant to conduct operations	itle to those rights in the subje		rtify				
Title 18 U.S.C. Section 1001 and Title 43 fictitious or fraudulent statements or repre	U.S.C. Section 1212, make it	a crime for any per	son knowingly a	nd willfully t	RECEIVE	r agency of the United States any false	

(Instructions on page 2)

fictitious or fraudulent statements Or representations as to any matter within its jurisdiction.

JUN 0 1 2009

#### Division of Oil, Gas and Mining

#### **OPERATOR CHANGE WORKSHEET (for state use only)**

ROUTING
CDW

X - Change of Operator (Well Sold)		Operator Name Change/Merger								
The operator of the well(s) listed below has chang	ged, effectiv	/e:	1/1/2014							
FROM: (Old Operator): N2165-Bill Barrett Corporation 1099 18th Street, Suite 230 Denver, CO 80202	N2165-Bill Barrett Corporation 1099 18th Street, Suite 230				TO: ( New Operator): N4040-EnerVest Operating, LLC 1001 Fannin Street, Suite 800 Houston, TX 77002					
Phone: 1 (303) 312-8134			Phone: 1 (713)	659-3500						
CA No.			Unit: Prickly Pear							
WELL NAME	SEC TWN	RNG	API NO	ENTITY NO	LEASE TYPE	WELL TYPE	WELL STATUS			
See Attached List										
OPERATOR CHANGES DOCUMENTATION  Enter date after each listed item is completed  1. (R649-8-10) Sundry or legal documentation was received from the FORMER operator on: 1/7/2014  2. (R649-8-10) Sundry or legal documentation was received from the NEW operator on: 1/7/2014  3. The new company was checked on the Department of Commerce, Division of Corporations Database on: 4a. Is the new operator registered in the State of Utah: Business Number: 8850806-0161  5a. (R649-9-2)Waste Management Plan has been received on: Not Yet  5b. Inspections of LA PA state/fee well sites complete on: Yes  5c. Reports current for Production/Disposition & Sundries on: 1/24/2014										
6. Federal and Indian Lease Wells: The BL					<del>-</del>					
or operator change for all wells listed on Federa 7. <b>Federal and Indian Units:</b> The BLM or BIA has approved the successor				BLM	Not Yet  Not Yet	BIA	_ N/A			
8. Federal and Indian Communization Agr		•	•							
The BLM or BIA has approved the operator f					N/A					
9. Underground Injection Control ("UIC"		_	_			•				
Inject, for the enhanced/secondary recovery un	it/project fo	r the wa	ater disposal wel	l(s) listed o	n:	Yes	_			
<ul><li>DATA ENTRY:</li><li>1. Changes entered in the Oil and Gas Database</li></ul>	on:		1/28/2014							
2. Changes have been entered on the Monthly Op	erator Cha	inge Sp			1/28/2014	ı				
3. Bond information entered in RBDMS on:			1/28/2014	•						
<ul><li>4. Fee/State wells attached to bond in RBDMS on</li><li>5. Injection Projects to new operator in RBDMS o</li></ul>			1/28/2014 1/28/2014							
6. Receipt of Acceptance of Drilling Procedures for		v on:	1/20/2014	•	1/7/2014					
7. Surface Agreement Sundry from <b>NEW</b> operator			lls received on:		1/7/2014					
BOND VERIFICATION:										
1. Federal well(s) covered by Bond Number:			RLB7886							
2. Indian well(s) covered by Bond Number:			RLB7886							
3a. (R649-3-1) The <b>NEW</b> operator of any state/fee	e well(s) list	ted cove	ered by Bond Nu	ımber	B008371					
3b. The <b>FORMER</b> operator has requested a release	of liability	from th	neir bond on:	N/A						
LEASE INTEREST OWNER NOTIFIC  4. (R649-2-10) The NEW operator of the fee wells of their responsibility to notify all interest owner COMMENTS:	has been co			y a letter fro 1/28/2014	om the Division					

W-11 N	-	TUDI		Prickly Pear U		2.6' 1	·		XXX 11 (D)	W. 11 C
Well Name	Sec		1	API Number	Entity	Mineral	Lease	Surface Lease	Well Type	Well Status
PPU FED 11-23D-12-15		120S	150E	4300731440		Federal		Federal	GW	APD
PPU FED 4-26D-12-15	<u> </u>	120S	150E	4300731441		Federal		Federal	GW	APD
PPU FED 14-23D-12-15	_	120S	150E	4300731442		Federal		Federal	GW	APD
PPU FED 12-23D-12-15		120S	150E	4300731443		Federal		Federal	GW	APD
PRICKLY PEAR U FED 12-7D-12-15	+	120S	150E			Federal		Federal	GW	APD
PRICKLY PEAR U FED 11-7D-12-15		120S	150E	4300750095		Federal		Federal	GW	APD
PRICKLY PEAR U FED 13-7D-12-15	<del>-</del>	120S	150E	4300750096		Federal		Federal	GW	APD
PRICKLY PEAR U FED 14-7D-12-15		120S	150E	4300750097		Federal		Federal	GW	APD
PRICKLY PEAR UF 11-8D-12-15	8	120S	150E	4300750124		Federal		Federal	GW	APD
PRICKLY PEAR UF 12-8D-12-15	8	120S	150E	4300750125		Federal		Federal	GW	APD
PRICKLY PEAR UF 13-8D-12-15	8	120S	150E	4300750126		Federal		Federal	GW	APD
PRICKLY PEAR UF 14-8D-12-15	8	120S	150E	4300750127		Federal		Federal	GW	APD
PRICKLY PEAR UF 9-21D-12-15	21	120S	150E	4300750128		Federal		Federal	GW	APD
PRICKLY PEAR UF 9A-21D-12-15		120S	150E	4300750129		Federal		Federal	GW	APD
PRICKLY PEAR UF 10-21D-12-15		120S	150E	4300750130		Federal		Federal	GW	APD
PRICKLY PEAR UF 10A-21D-12-15	21	120S	150E	4300750131		Federal		Federal	GW	APD
PRICKLY PEAR UF 15A-21D-12-15	21	120S	150E	4300750132		Federal		Federal	GW	APD
PRICKLY PEAR UF 15X-21D-12-15	21	120S	150E	4300750133		Federal		Federal	GW	APD
PRICKLY PEAR UF 16-21D-12-15	21	120S	150E	4300750134		Federal		Federal	GW	APD
PRICKLY PEAR UF 16A-21D-12-15	21	120S	150E	4300750135		Federal		Federal	GW	APD
PRICKLY PEAR UF 13A-22D-12-15	21	120S	150E	4300750148		Federal		Federal	GW	APD
PRICKLY PEAR UF 1A-27D-12-15	22	120S	150E	4300750161		Federal		Federal	GW	APD
PRICKLY PEAR UF 2A-27D-12-15	22	120S	150E	4300750162		Federal		Federal	GW	APD
PRICKLY PEAR UF 3A-27D-12-15	22	120S	150E	4300750163		Federal		Federal	GW	APD
PRICKLY PEAR UF 9A-22D-12-15	22	120S	150E	4300750164		Federal		Federal	GW	APD
PRICKLY PEAR UF 10A-22D-12-15	22	120S	150E	4300750165		Federal		Federal	GW	APD
PRICKLY PEAR UF 11A-22D-12-15	22	120S	150E	4300750166		Federal		Federal	GW	APD
PRICKLY PEAR UF 12A-22D-12-15	22	120S	150E	4300750167		Federal		Federal	GW	APD
PRICKLY PEAR UF 14A-22D-12-15	22	120S	150E	4300750168		Federal		Federal	GW	APD
PRICKLY PEAR UF 15A-22D-12-15	22	120S	150E	4300750169		Federal		Federal	GW	APD
PRICKLY PEAR UF 16A-22D-12-15	22	120S	150E	4300750170		Federal		Federal	GW	APD
PRICKLY PEAR UF 15A-15D-12-15	15	120S	150E	4300750180		Federal		Federal	GW	APD
PRICKLY PEAR UF 11B-15D-12-15	15	120S	150E	4300750181		Federal		Federal	GW	APD
PRICKLY PEAR UF 16A-15D-12-15	15	120S	150E	4300750184		Federal		Federal	GW	APD
PRICKLY PEAR UF 3A-18D-12-15	7	120S	150E	4300750185		Federal		Federal	GW	APD
PRICKLY PEAR UF 4A-18D-12-15				4300750186		Federal		Federal	GW	APD
PRICKLY PEAR UF 11A-7D-12-15	7	120S	150E	4300750187		Federal		Federal	GW	APD
PRICKLY PEAR UF 2-18D-12-15			150E	4300750188		Federal		Federal	GW	APD
PRICKLY PEAR UF 12A-7D-12-15			150E	4300750189		Federal		Federal	GW	APD
PRICKLY PEAR UF 13A-7D-12-15			150E	4300750190		Federal		Federal	GW	APD
PRICKLY PEAR UF 14A-7D-12-15	-		150E	4300750191		Federal		Federal		APD
PRICKLY PEAR FEDERAL 1-12D-12-14			140E	4300750205		Federal		Federal		APD
PRICKLY PEAR UF 2-12D-12-14	-		140E	4300750206		Federal		Federal		APD
PRICKLY PEAR UF 7-12D-12-14			140E	4300750207		Federal		Federal		APD
PRICKLY PEAR UF 7A-12D-12-14	-		140E	4300750208		Federal		Federal	GW	APD
PRICKLY PEAR UF 8-12D-12-14			140E	4300750209		Federal		Federal		APD
PRICKLY PEAR UF 4-7D-12-15			140E	4300750210		Federal		Federal	GW	APD
PRICKLY PEAR UF 5-7D-12-15			140E	4300750211		Federal				APD
PRICKLY PEAR UF 8A-12D-12-14			140E	4300750212		Federal				APD
PRICKLY PEAR UF 5A-7D-12-15			140E	4300750213		Federal				APD
PRICKLY PEAR UF 7-14D-12-15			150E	4300750213		Federal		Federal		APD
PRICKLY PEAR UF 7A-14D-12-15				4300750214		Federal		Federal		APD
PRICKLY PEAR UF 9-14D-12-15				4300750217	-	Federal		Federal	****	APD
PRICKLY PEAR UF 9A-14D-12-15			150E	4300750217		Federal		Federal		APD
PRICKLY PEAR UF 10-14D-12-15			150E			Federal				APD
PRICKLY PEAR UF 10A-14D-12-15				4300750219		Federal				APD
TRUME TEAR OF TVA-14D-12-13	14	1200	TOOL	TJ00/J0220		1 cuciai		Luciai	U W	MΓV

Well Name	Coo TWN		API Number		Min and Lagar	Comfort I	W-11 T	337-11 C4-4
PRICKLY PEAR UF 15A-14D-12-15	14 120S	150E	4300750222	Entity	Mineral Lease Federal		Well Type GW	Well Status
PRICKLY PEAR UF 16-14D-12-15	14 120S	150E	4300750222		Federal	Federal	GW	APD APD
PRICKLY PEAR UF 16A-14D-12-15	14 120S	150E	4300750224		Federal	Federal	GW	+
PRICKLY PEAR UF 1A-18D-12-15	7 120S	150E	4300750225		Federal	Federal	GW	APD
PRICKLY PEAR UF 2A-18D-12-15	7 120S	150E	4300750226		Federal	Federal		APD
PRICKLY PEAR UF 9A-7D-12-15	7 120S	150E	4300730220			Federal	GW	APD
PRICKLY PEAR UF 10A-7D-12-15	7 120S	150E			Federal	Federal	GW	APD
PRICKLY PEAR UF 15A-7D-12-15	7 120S		4300750228		Federal	Federal	GW	APD
PRICKLY PEAR UF 16A-7D-12-15	<del>                                     </del>	150E	4300750229		Federal	Federal	GW	APD
PRICKLY PEAR UF 9A-12D-12-14	7 120S	150E	4300750230		Federal	Federal	GW	APD
PRICKLY PEAR UF 10A-12D-12-14	12 120S	140E	4300750233		Federal	Federal	GW	APD
PRICKLY PEAR UF 15A-12D-12-14	12 1208	140E	4300750234		Federal	Federal	GW	APD
PRICKLY PEAR UF 13A-12D-12-14  PRICKLY PEAR UF 12A-8D-12-15	12 120S	140E	4300750235		Federal	Federal	GW	APD
	8 120S	150E	4300750236		Federal	Federal	GW	APD
PRICKLY PEAR UF 16A-12D-12-14	12 120S	140E	4300750237		Federal	Federal	GW	APD
PRICKLY PEAR UF 11A-8D-12-15	8 120S	150E	4300750238		Federal	Federal	GW	APD
PRICKLY PEAR UF 13A-8D-12-15	8 120S	150E	4300750239		Federal	Federal	GW	APD
PRICKLY PEAR UF 14A-8D-12-15	8 120S	150E	4300750240		Federal	Federal	GW	APD
PRICKLY PEAR UF 5A-8D-12-15	8 120S	150E	4300750260		Federal	Federal	GW	APD
PRICKLY PEAR UF 6A-8D-12-15	8 120S	150E	4300750261		Federal	Federal	GW	APD
PRICKLY PEAR UF 4-8D-12-15	8 120S	150E	4300750262		Federal	Federal	GW	APD
PRICKLY PEAR UF 3-8D-12-15	8 120S	150E			Federal	Federal	GW	APD
PRICKLY PEAR UF 2-8D-12-15	8 120S	150E	4300750264		Federal	Federal	GW	APD
PRICKLY PEAR UF 7A-8D-12-15	·	150E	4300750265		Federal	Federal	GW	APD
PRICKLY PEAR UF 7-8D-12-15		150E	4300750266		Federal	Federal	GW	APD
PRICKLY PEAR UF 5-8D-12-15	<del>                                     </del>	150E	4300750267		Federal	Federal	GW	APD
PRICKLY PEAR UF 6-8D-12-15		150E	4300750268		Federal	Federal	GW	APD
PRICKLY PEAR UF 10A-8D-12-15	<del>                                     </del>	150E	4300750269	-	Federal	Federal	GW	APD
PRICKLY PEAR UF 9A-8D-12-15		150E	4300750270		Federal	Federal	GW	APD
PRICKLY PEAR UF 8-8D-12-15		150E	4300750271		Federal	Federal	GW	APD
PRICKLY PEAR UF 1-8D-12-15	<del></del>	150E	4300750272		Federal	Federal	GW	APD
PRICKLY PEAR UF 8A-8D-12-15		150E	4300750273		Federal	Federal	GW	APD
PRICKLY PEAR UF 5-9D-12-15		150E	4300750274		Federal	Federal	GW	APD
PRICKLY PEAR UF 5A-9D-12-15		150E	4300750275		Federal	Federal	GW	APD
PRICKLY PEAR UF 4-9D-12-15		150E	4300750276		Federal	Federal	GW	APD
PRICKLY PEAR UF 3-9D-12-15			4300750277		Federal	Federal		APD
PRICKLY PEAR UF 6A-9D-12-15			4300750278		Federal	Federal	GW	APD
PRICKLY PEAR UF 11-9D-12-15		150E	4300750279		Federal	Federal	GW	APD
PRICKLY PEAR UF 12A-9D-12-15		150E	4300750280		Federal	Federal	GW	APD
PRICKLY PEAR UF 6-9D-12-15		150E	4300750281		Federal	Federal	GW	APD
PRICKLY PEAR UF 11A-9D-12-15		150E	4300750282		Federal	Federal	GW	APD
PRICKLY PEAR US 1X-16D-12-15		150E	4300750283		State	Federal	GW	APD
PRICKLY PEAR UF 5A-15D-12-15		150E	4300750284		Federal	Federal	GW	APD
PRICKLY PEAR UF 6A-15D-12-15		150E	4300750285		Federal	Federal	GW	APD
PRICKLY PEAR UF 3-15D-13-15		150E	4300750286		Federal	Federal	GW	APD
PRICKLY PEAR UF 15A-10D-12-15		150E	4300750287		Federal		GW	APD
PRICKLY PEAR UF 13-10D-12-15		150E	4300750288		Federal		GW	APD
PRICKLY PEAR UF 15-10D-12-15		150E	4300750289		Federal		GW	APD
PRICKLY PEAR UF 16A-10D-12-15	<u> </u>	150E	4300750290		Federal		GW	APD
PRICKLY PEAR UF 9-10D-12-15		150E	4300750291		Federal		GW	APD
PRICKLY PEAR UF 14A-10D-12-15		150E	4300750292				GW	APD
PRICKLY PEAR UF 10-10D-12-15		150E	4300750293		Federal		GW	APD
PRICKLY PEAR UF 16-10D-12-15			4300750294				GW	APD
PRICKLY PEAR UF 13-11D-12-15			4300750295					APD
PRICKLY PEAR UF 13A-11D-12-15			4300750296					APD
PRICKLY PEAR UF 12-11D-12-15			4300750297			Federal	GW	APD
PRICKLY PEAR UF 13A-10D-12-15	10 120S	150E	4300750298		Federal	Federal	GW	APD

Well Name	Cas TUAL		ARIAN-I		N C 1 T	C C I	W. 11 C	W. 11 C
PRICKLY PEAR UF 12-10D-12-15		+	API Number			<del> </del>	Well Type	Well Status
	10 1208	150E	4300750299		Federal	Federal	GW	APD
PRICKLY PEAR UF 11-10D-12-15 PRICKLY PEAR UF 3A-15D-12-15	10 1208	150E	4300750300		Federal	Federal	GW	APD
	10 1208	150E	4300750301	-	Federal	Federal	GW	APD
PRICKLY PEAR UF 12-14D-12-15	14 120S	150E	4300750302		Federal	Federal	GW	APD
PRICKLY PEAR UF 4-15D-12-15	10 120S	150E	4300750303	-	Federal	Federal	GW	APD
PRICKLY PEAR UF 4A-15D-12-15	10 1208	150E	4300750304		Federal	Federal	GW	APD
PRICKLY PEAR UF 14-10D-12-15	10 120S	150E	4300750305	<del></del>	Federal	Federal	GW	APD
PRICKLY PEAR UF 9A-17D-12-15	17 120S	150E	4300750306		Federal	Federal	GW	APD
PRICKLY PEAR UF 8A-17D-12-15	17 120S	150E	4300750307	+	Federal	Federal	GW	APD
PRICKLY PEAR UF 10A-17D-12-15	17 120S	150E	4300750308		Federal	Federal	GW	APD
PRICKLY PEAR UF 3-7D-12-15	7 120S	150E	4300750309		Federal	Federal	GW	APD
PRICKLY PEAR UF 16A-17D-12-15	17 120S	150E	4300750310		Federal	Federal	GW	APD
PRICKLY PEAR UF 6-7D-12-15	7 120S	150E	4300750311		Federal	Federal	GW	APD
PRICKLY PEAR UF 15A-17D-12-15	17 120S	150E	4300750312		Federal	Federal	GW	APD
PRICKLY PEAR UF 6A-7D-12-15	7 120S	150E	4300750313		Federal	Federal	GW	APD
PRICKLY PEAR UF 7A-7D-12-15	7 120S	150E	4300750314	i 	Federal	Federal	GW	APD
PRICKLY PEAR UF 8A-7D-12-15	7 120S	150E	4300750315		Federal	Federal	GW	APD
PRICKLY PEAR UF 6X-17D-12-15	17 120S	150E	4300750316		Federal	Federal	GW	APD
PRICKLY PEAR UF 11A-17D-12-15	17 120S	150E	4300750317		Federal	Federal	GW	APD
PRICKLY PEAR UF 15B-17D-12-15	17 120S	150E	4300750318		Federal	Federal	GW	APD
PRICKLY PEAR UF 8A-20D-12-15	20 120S	150E	4300750319		Federal	Federal	GW	APD
PRICKLY PEAR UF 1-7D-12-15	7 120S	150E	4300750320		Federal	Federal	GW	APD
PRICKLY PEAR UF 7A-20D-12-15	20 120S	150E	4300750321		Federal	Federal	GW	APD
PRICKLY PEAR UF 9A-20D-12-15	20 120S	150E	4300750322		Federal	Federal	GW	APD
PRICKLY PEAR UF 10A-20D-12-15	20 120S	150E	4300750323		Federal	Federal	GW	APD
PRICKLY PEAR UF 10-20D-12-15	20 120S	150E	4300750324		Federal	Federal	GW	APD
PRICKLY PEAR UF 2-7D-12-15	7 120S	150E	4300750325		Federal	Federal	GW	APD
PRICKLY PEAR UF 14A-20D-12-15	20 120S	150E	4300750326		Federal	Federal	GW	APD
PRICKLY PEAR UF 16A-20D-12-15	20 120S	150E	4300750327		Federal	Federal	GW	APD
PRICKLY PEAR UF 15A-20D-12-15	20 120S	150E	4300750328		Federal	Federal	GW	APD
PRICKLY PEAR UF 8-7D-12-15	7 120S	150E	4300750329		Federal	Federal	GW	APD
PRICKLY PEAR UF 15-20D-12-15	20 120S	150E	4300750330		Federal	Federal	GW	APD
PRICKLY PEAR UF 7-7D-12-15	7 120S	150E	4300750331		Federal	Federal	GW	APD
PRICKLY PEAR UF 6-10D-12-15	9 120S	150E	4300750332		Federal	Federal	GW	APD
PRICKLY PEAR UF 5A-10D-12-15	9 120S	150E	4300750333		Federal	Federal	GW	APD
PRICKLY PEAR UF 11A-10D-12-15	9 120S	150E	4300750334		Federal	Federal	GW	APD
PRICKLY PEAR UF 6A-10D-12-15	9 120S	1 <b>50</b> E	4300750335		Federal	Federal	GW	APD
PRICKLY PEAR UF 5-10D-12-15	9 120S	150E	4300750336		Federal	Federal	GW	APD
PRICKLY PEAR UF 12A-10D-12-15	9 120S	150E	4300750338		Federal	Federal	GW	APD
PRICKLY PEAR UF 3-10D-12-15		150E	4300750339		Federal	Federal	GW	APD
PRICKLY PEAR UF 4-10D-12-15	9 120S	150E	4300750340		Federal	Federal	GW	APD
PRICKLY PEAR UF 8-9D-12-15	9 120S	150E	4300750341		Federal	Federal	GW	APD
PRICKLY PEAR UF 8A-9D-12-15	9 120S	150E	4300750342		Federal	Federal	GW	APD
PRICKLY PEAR UF 7A-9D-12-15	9 120S	150E	4300750343		Federal	Federal	GW	APD
PRICKLY PEAR UF 7-9D-12-15	9 120S	150E	4300750344		Federal	Federal	GW	APD
PRICKLY PEAR UF 1-9D-12-15	9 120S	150E	4300750345		Federal	Federal	GW	APD
PRICKLY PEAR UF 2-9D-12-15	9 120S	150E	4300750346		Federal			APD
PRICKLY PEAR UF 1-24D-12-1	24 120S	150E	4300750348		Federal	Federal	GW	APD
PRICKLY PEAR UF 9-13D-12-15	13 120S	150E	4300750349		-		GW	APD
PRICKLY PEAR U FED 7-21D-12-15	21 120S	150E	4300750055	14794			GW	OPS
PRICKLY PEAR US 1A-16D-12-15	9 120S	150E	4300750192					OPS
PRICKLY PEAR US 2A-16D-12-15	9 120S	150E	4300750193					OPS
PRICKLY PEAR US 2-16D-12-15			4300750194					OPS
PRICKLY PEAR UF 9A-9D-12-15			4300750196					OPS
PRICKLY PEAR UF 10-9D-12-15			4300750197					OPS
PRICKLY PEAR UF 10A-9D-12-15			4300750198					OPS
							~	-1

Well Name	G TUDI		ear Unit	3.61 1.7	G C T	*** 11 m	TTT 11 0
Well Name				Mineral Lease		Well Type	Well Status
PRICKLY PEAR UF 14-9D-12-15	9 1208	·	0199 14794		Federal	GW	OPS
PRICKLY PEAR UF 14A-9D-12-15	9 1208	<del></del>	0200 14794		Federal	GW	OPS
PRICKLY PEAR UF 15-9D-12-15	9 1208		0201 14794		Federal	GW	OPS
PRICKLY PEAR UF 15A-9D-12-15	9 1208		0203 14794	l	Federal	GW	OPS
PRICKLY PEAR UF 16A-9D-12-15	9 1208		0204 14794		Federal	GW	OPS
STONE CABIN FED 2-B-27	27 120S		0018 14794		Federal	GW	P
PRICKLY PEAR ST 16-15	16 120S		0522 14794		State	GW	P
PRICKLY PEAR UNIT 21-2	21 120S		0828 14794	<u></u>	Federal	GW	P
PRICKLY PEAR U ST 13-16	16 120S		0933 14794		State	GW	P
PRICKLY PEAR U ST 11-16	16 120S		0944 14794	State	State	GW	P
PRICKLY PEAR U ST 7-16	16 120S	150E 430073	0945 14794	State	State	GW	P
PRICKLY PEAR U FED 7-25	25 120S	150E 430073	0954 14794	Federal	Federal	GW	P
PRICKLY PEAR U ST 36-06	36 120S	150E 430073	1018   14794	State	State	GW	P
PRICKLY PEAR U FED 13-23-12-15	23 120S	150E 430073	1073 14794	Federal	Federal	GW	P
PRICKLY PEAR U FED 1-27D-12-15	23 120S	150E 430073	1074 14794	Federal	Federal	GW	P
PRICKLY PEAR U FED 3-26D-12-15	23 120S	150E 430073	1075 14794	Federal	Federal	GW	P
PRICKLY PEAR U FED 15-22D-12-15	23 120S	150E 430073	1076 14794	Federal	Federal	GW	P
PRICKLY PEAR U FED 3-28D-12-15	21 120S	150E 430073	1121 14794	Federal	Federal	GW	P
PRICKLY PEAR U FED 15-21-12-15	21 120S	150E 430073	1164 14794	Federal	Federal	GW	P
PRICKLY PEAR U FED 13-21D-12-15	21 120S		1166 14794		Federal	GW	P
PRICKLY PEAR U FED 11-17D-12-15	17 120S	<del></del>	1184 14794	<del> </del>	Federal	GW	P
PRICKLY PEAR U FED 7-22D-12-15	22 120S		1186 14794		Federal	GW	P
PRICKLY PEAR U FED 3-22-12-15	22 120S		1187 14794		Federal	GW	P
PRICKLY PEAR U FED 5-22D-12-15	22 120S		1188 14794		Federal	GW	P
PRICKLY PEAR 11-15D-12-15	22 120S		1189 14794	· · · · · · · · · · · · · · · · · · ·	Federal	GW	P
PRICKLY PEAR U FED 9-18D-12-15	18 120S		1192 14794	- <del></del>	Federal	GW	P
PRICKLY PEAR U FED 15-18-12-15	18 120S		1193 14794		Federal	GW	P
PRICKLY PEAR U FED 16-27D-12-15	27 120S		1194 15569	<del></del>	Federal	GW	P
PRICKLY PEAR U FED 12-27D-12-15	27 120S		1195 15568		Federal	GW	P
PRICKLY PEAR U FED 9-20D-12-15	20 120S		1193 13308		Federal	GW	P
PRICKLY PEAR U FED 7-20-12-15	20 120S		1197 14794		Federal	GW	P
PRICKLY PEAR U FED 1-20-12-15	20 120S		1206 14794		Federal		P
PRICKLY PEAR U ST 4-36-12-15	36 120S		1200 14794 1227 14794			GW	
PRICKLY PEAR U FED 4-27D-12-15	22 120S	150E 430073			State	GW	P
PRICKLY PEAR U FED 13-22-12-15					Federal	GW	P
		150E 430073			Federal	GW	P
PRICKLY PEAR U FED 3-27D-12-15		150E 430073			Federal	GW	P
PRICKLY PEAR U ST 9-16-12-15		150E 430073			State	GW	P
PRICKLY PEAR U FED 9-28D-12-15	28 120S	150E 430073			Federal	GW	P
PRICKLY PEAR U FED 5-27D-12-15			1242 14794	<del> </del>	Federal	GW	P
PRICKLY PEAR U FED 1-28-12-15	28 120S		1243 14794		Federal	GW	P
PRICKLY PEAR U FED 8-28D-12-15	28 120S		1244 14794	<del></del> .	Federal	GW	P
PRICKLY PEAR U ST 1-16-12-15	16 120S		1245 14794	<del></del>	State	GW	P
PPU FED 11-18D-12-15			1257 14794	·	Federal	GW	P
PPU FED 11-20D-12-15			1258 14794	<del></del>	Federal	GW	P
PPU FED 4-25D-12-15	<del></del>		1259 14794	Federal	Federal	GW	P
PPU FED 12-25D-12-15			1260 16068	<del>i</del>	Federal	GW	P
PPU FED 14-26D-12-15	35 120S		1282 16224	Federal	Federal	GW	P
PPU FED 2-35-12-15	35 120S		283 14794	Federal	Federal	GW	P
PPU FED 10-26D-12-15	35 120S	150E 430073	284 14794	Federal	Federal	GW	P
PPU FED 9-17-12-15	17 120S	150E 430073	287 14794	Federal	Federal	GW	P
PPU FED 1-17D-12-15	17 120S	150E 430073	288 14794	Federal	Federal	GW	P
PPU FED 7-17D-12-15		150E 430073			Federal	GW	P
PPU FED 1-18D-12-15		150E 430073				GW	P
PPU FED 7-18D-12-15		150E 430073				GW	P
PPU FED 5-17D-12-15		150E 430073				GW	P
PPU FED 10-17D-12-15		150E 430073				GW	P
		, 120070	,				-

		Prickly Pear U					
Well Name	Sec TWN	RNG API Number	Entity	Mineral Lease	Surface Lease	Well Type	Well Status
PPU FED 8-17D-12-15	17 120S	150E 4300731308	14794	Federal	Federal	GW	P
PPU FED 12-17D-12-15	17 120S	150E 4300731309	14794	Federal	Federal	GW	P
PPU FED 13-17D-12-15	17 120S	150E 4300731310	14794	Federal	Federal	GW	P
PPU FED 14-17D-12-15	17 120S	150E 4300731311	14794	Federal	Federal	GW	P
PPU FED 16-18D-12-15	17 120S	150E 4300731312	14794	Federal	Federal	GW	P
PPU FED 8-18D-12-15	18 120S	150E 4300731313			Federal	GW	P
PPU FED 3-18D-12-15	18 120S	150E 4300731314			Federal	GW	P
PPU FED 4-18-12-15	<del>                                     </del>	150E 4300731315			Federal	GW	P
PPU FED 5-18D-12-15	-	150E 4300731316			Federal	GW	P
PPU FED 6-18D-12-15		150E 4300731317			Federal	GW	P
PPU FED 16-17D-12-15	+	150E 4300731321			Federal	GW	P
PPU ST 15-16D-12-15	16 120S	150E 4300731322			State	GW	P
PPU ST 16-16D-12-15	·	150E 4300731323			State	GW	P
PPU ST 14-16D-12-15		150E 4300731324			State	GW	P
PPU FED 3-21D-12-15		150E 4300731324			Federal	GW	P
PPU FED 4-21D-12-15	21 120S 21 120S	150E 4300731329			Federal	GW	P
PPU FED 13-15D-12-15	<del> </del>	150E 4300731358			Federal	GW	P
PPU FED 14-15D-12-15	22 120S	150E 4300731359			Federal	GW	P
PPU FED 4-22D-12-15	22 120S	150E 4300731360			Federal	GW	P
PPU FED 6-22D-12-15	22 120S	150E 4300731361			Federal	GW	P
PPU FED 2-28D-12-15	<del></del>	150E 4300731361 150E 4300731362				GW	P
PPU FED 16X-21D-12-15		150E 4300731362 150E 4300731363			Federal Federal		P
PPU FED 5A-27D-12-15		150E 4300731364				GW	
PPU FED 1A-28D-12-15					Federal	GW	P P
PPU FED 14A-18D-12-15	28 120S	· · · · · · · · · · · · · · · · · · ·			Federal	GW	
PPU FED 10-18D-12-15		150E 4300731393			Federal	GW	P
PPU FED 15A-18D-12-15		150E 4300731394			Federal	GW	P
		150E 4300731395			Federal	GW	P
PPU FED 12 22D 12 15		150E 4300731396			Federal	GW	P
PPU FED 12-22D-12-15 PPU FED 11-22D-12-15	·	150E 4300731398			Federal	GW	P
PPU FED 14-22D-12-15		150E 4300731399			Federal	GW	P
PPU FED 4A-27D-12-15		150E 4300731400			Federal	GW	P
PPU FED 11-21D-12-15		150E 4300731401			Federal	GW	P
PPU FED 11-21D-12-15		150E 4300731412			Federal	GW	P
PPU FED 12-21D-12-15		150E 4300731413			Federal	GW	P
PPU FED 8-20D-12-15	(	150E 4300731414			Federal	GW	P
		150E 4300731419			Federal	GW	P
PPU FED 1A-20D-12-15		150E 4300731420			Federal	GW	P
PPU FED 2-20D-12-15		150E 4300731421			Federal	GW	P
PPU ST 7A-16D-12-15		150E 4300731422			State	GW	P
PPU ST 6-16D-12-15		150E 4300731423			State	GW	P
PPU ST 10A-16D-12-15		150E 4300731424			State	GW	P
PPU ST 3-16D-12-15	<del></del>	150E 4300731425			State	GW	P
PPU FED 5-21D-12-15		150E 4300731451			Federal	GW	P
PPU ST 8-16D-12-15	-	150E 4300731455			State	GW	P
PPU ST 12-16D-12-15		150E 4300731456			State	GW	P
PPU ST 12A-16D-12-15		150E 4300731457			State	GW	P
PPU ST 15A-16D-12-15		150E 4300731458			State	GW	P
PPU ST 10-16D-12-15		150E 4300731459			State	GW	P
PPU ST 11A-16D-12-15		150E 4300731460			State	GW	P
PPU ST 13A-16D-12-15		150E 4300731461			State	GW	P
PPU FED 10-7D-12-15		150E 4300731470			Federal	GW	P
PPU FED 15-7D-12-15		150E 4300731471			Federal	GW	P
PPU FED 9-7D-12-15	·	150E 4300731472				GW	P
PPU FED 16-7D-12-15	<del></del>	150E 4300731473				GW	P
PPU ST 6A-16D-12-15	·	150E 4300731477				GW	P
PPU ST 4-16D-12-15	16 120S	150E 4300731478	14794	State	State	GW	P

			y Pear Onit				
Well Name	Sec TWN	RNG API N	Number Entit	y Mineral Lease	Surface Lease	Well Type	Well Status
PPU ST 4A-16D-12-15	16 120S	·	731479 1479		State	GW	P
PPU ST 5A-16D-12-15	16 120S		731480 1479		State	GW	P
PPU ST 3A-16D-12-15	16 120S		731481 1479		State	GW	P
PPU ST 16A-16D-12-15	16 120S		731484 1479		State	GW	P
PPU ST 9A-16D-12-15	16 120S		731485 1479		State	GW	P
PPU ST 16B-16D-12-15	16 120S	<del></del>	731514 1479		State	GW	P
PPU ST 14B-16D-12-15	16 120S	150E 4300	731515 1479	94 State	State	GW	P
PPU ST 13B-16D-12-15	16 120S	150E 4300	731516 1479	94 State	State	GW	P
PRICKLY PEAR U FED 9-22D-12-15	22 120S		750041 1479		Federal	GW	P
PRICKLY PEAR U FED 10-22D-12-15	22 120S	150E 4300	750042 1479	4 Federal	Federal	GW	P
PRICKLY PEAR U FED 16-22D-12-15	22 120S	150E 4300	750043 1479	4 Federal	Federal	GW	P
PRICKLY PEAR U FED 2-27D-12-15	22 120S	150E 4300	750044   1479	4 Federal	Federal	GW	P
PRICKLY PEAR U FED 16-15D-12-15	15 120S	150E 4300	750045 1479	4 Federal	Federal	GW	P
PRICKLY PEAR U FED 15-15D-12-15	15 120S	150E 4300	750046 1479	4 Federal	Federal	GW	P
PRICKLY PEAR U FED 10-15D-12-15	15 120S	150E 4300	750047 1479	4 Federal	Federal	GW	P
PRICKLY PEAR U FED 9-15D-12-15	15 120S	150E 4300	750048 1479	4 Federal	Federal	GW	P
PRICKLY PEAR U FED 11A-15D-12-15	15 120S	150E 4300	750049 1479	4 Federal	Federal	GW	P
PRICKLY PEAR U FED 1-21D-12-15	21 120S	150E 4300	750050 1479	4 Federal	Federal	GW	P
PRICKLY PEAR U FED 2-21D-12-15	21 120S	150E 4300	750051 1479	4 Federal	Federal	GW	P
PRICKLY PEAR U FED 2A-21D-12-15	21 120S	150E 4300	750052 1479	4 Federal	Federal	GW	P
PRICKLY PEAR U FED 4A-22D-12-15	21 120S	150E 4300	750053 1479	4 Federal	Federal	GW	P
PRICKLY PEAR U FED 5A-22D-12-15	21 120S	150E 4300°	750054 1479	4 Federal	Federal	GW	P
PRICKLY PEAR U FED 7A-21D-12-15	21 120S	150E 4300°	750056 1479	4 Federal	Federal	GW	P
PRICKLY PEAR U FED 8-21D-12-15	21 120S	150E 4300°	750057 1479	4 Federal	Federal	GW	P
PRICKLY PEAR U FED 8A-21D-12-15	21 120S		750058 1479		Federal	GW	P
PRICKLY PEAR U FED 16-8D-12-15	8 120S		750059 1479		Federal	GW	P
PRICKLY PEAR U FED 15-8D-12-15			750060 1479		Federal	GW	P
PRICKLY PEAR U FED 2-17D-12-15			750061 1479		Federal	GW	P
PRICKLY PEAR U FED 1A-17D-12-15		·	750062 1479		Federal	GW	P
PRICKLY PEAR U FED 1-22D-12-15			750076 1479		Federal	GW	P
PRICKLY PEAR U FED 2-22D-12-15			750077 1479		Federal	GW	P
PRICKLY PEAR U FED 8-22D-12-15			750078 1479		Federal	GW	P
PRICKLY PEAR U FED 3-17D-12-15			750079 1479	· · · · · · · · · · · · · · · · · · ·	Federal	GW	P
PRICKLY PEAR U FED 3A-17D-12-15			750080 1479		Federal	GW	P
			750081 1479			GW	P
PRICKLY PEAR U FED 4A-17D-12-15			750082 1479		Federal	GW	P
PRICKLY PEAR U FED 5A-17D-12-15			750083 1479			GW	P
PRICKLY PEAR U FED 6-17D-12-15			750084 1479			GW	P
PRICKLY PEAR U FED 6A-17D-12-15			750085 1479		Federal	GW	P
PRICKLY PEAR U FED 7A-17D-12-15			750086 1479		Federal	GW	P
PRICKLY PEAR U FED 9-12D-12-14			750088 1479		Federal	GW	P
PRICKLY PEAR U FED 10-12D-12-14			750089 1479				P
PRICKLY PEAR U FED 15-12D-12-14			750090 1479	<del></del>			P
PRICKLY PEAR U FED 16-12D-12-14		<del></del>	750091 1479				P
PRICKLY PEAR U FED 3-20D-12-15			750098 1479			GW	P
PRICKLY PEAR U FED 3A-20D-12-15			750099 1479	<del></del>			P
PRICKLY PEAR U FED 4-20D-12-15			750100 1479				P P
PRICKLY PEAR U FED 4A-20D-12-15			750100 1479				<u>P</u>
PRICKLY PEAR U FED 5-20D-12-15			750101 1479				P I
PRICKLY PEAR U FED 5A-20D-12-15		<del></del>	750102 1479 750103 1479				P P
PRICKLY PEAR U FED 6-20D-12-15			750103 1479 750104 1479				<u>Р</u> Р
PRICKLY PEAR U FED 6A-20D-12-15			750104 1479 750105 1479				P P
PRICKLY PEAR U FED 11A-20D-12-15			50105 1479 50106 1479	_ t			P P
PRICKLY PEAR U FED 12A-20D-12-15			50106 1479 50107 1479				
PRICKLY PEAR U FED 13A-17D-12-15							P
PRICKLY PEAR UF 7A-18D-12-15			50108 1479 50126 1470				P
I MICKL I FEAR OF /A-18D-12-13	17 120S	130E 43007	50136 1479	+ rederal	Federal_	GW	P

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Well Name	Sec TWN	RNG	API Number	Entity	Mineral Lease	Surface Lease	Well Type	Well Status
PRICKLY PEAR UF 8A-18D-12-15	17 120S	150E	4300750137	14794	Federal	Federal	GW	P
PRICKLY PEAR UF 9A-18D-12-15	17 120S	150E	4300750138	14794	Federal	Federal	GW	P
PRICKLY PEAR UF 12-20D-12-15	20 120S	150E	4300750139	14794	Federal	Federal	GW	P
PRICKLY PEAR UF 16A-8D-12-15	8 120S	150E	4300750140	14794	Federal	Federal	GW	P
PRICKLY PEAR UF 15A-8D-12-15	8 120S	150E	4300750141	14794	Federal	Federal	GW	P
PRICKLY PEAR UF 13A-9D-12-15	8 120S	150E	4300750142	14794	Federal	Federal	GW	P
PRICKLY PEAR UF 13-9D-12-15	8 120S	150E	4300750143	14794	Federal	Federal	GW	P
PRICKLY PEAR UF 12-9D-12-15	8 120S	150E	4300750144	14794	Federal	Federal	GW	P
PRICKLY PEAR UF 10-8D-12-15	8 120S	150E	4300750145	14794	Federal	Federal	GW	P
PRICKLY PEAR UF 9-8D-12-15	8 120S	150E	4300750146	14794	Federal	Federal	GW	P
PRICKLY PEAR UF 2A-17D-12-15	8 120S	150E	4300750147	14794	Federal	Federal	GW	P
PRICKLY PEAR UF 1A-22D-12-15	22 120S	150E	4300750171	14794	Federal	Federal	GW	P
PRICKLY PEAR UF 2A-22D-12-15	22 120S	150E	4300750172	14794	Federal	Federal	GW	P
PRICKLY PEAR UF 6A-22D-12-15	22 120S	150E	4300750173	14794	Federal	Federal	GW	P
PRICKLY PEAR UF 7A-22D-12-15	22 120S	150E	4300750174	14794	Federal	Federal	GW	P
PRICKLY PEAR UF 8A-22D-12-15	22 120S	150E	4300750175	14794	Federal	Federal	GW	P
PRICKLY PEAR UF 14B-15D-12-15	22 120S	150E	4300750176	14794	Federal	Federal	GW	P
PRICKLY PEAR UF 9-9D-12-15	9 120S	150E	4300750195	14794	Federal	Federal	GW	P
PRICKLY PEAR UF 16-9D-12-15	9 120S	150E	4300750202	14794	Federal	Federal	GW	P
PRICKLY PEAR UF 8-14D-12-15	14 120S	150E	4300750216	18289	Federal	Federal	GW	P
PRICKLY PEAR UF 15-14D-12-15	14 120S	150E	4300750221	18290	Federal	Federal	GW	P
PRICKLY PEAR U ST 5-16	16 120S	150E	4300730943	14794	State	State	GW	S
PRICKLY PEAR U FED 7-28D-12-15	21 120S	150E	4300731165	14794	Federal	Federal	GW	S
PRICKLY PEAR U FED 15-17-12-15	17 120S	150E	4300731183	14794	Federal	Federal	GW	S
PRICKLY PEAR U FED 10-27-12-15	27 120S	150E	4300731196	15570	Federal	Federal	GW	S
PPU FED 4-35D-12-15	35 120S	150E	4300731285	16223	Federal	Federal	GW	S
PRICKLY PEAR U FED 12A-17D-12-15	17 120S	150E	4300750087	14794	Federal	Federal	GW	S
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**STATE OF UTAH**DEPARTMENT OF NATURAL RESOURCES

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DIVISION OF OIL, GAS AND MINING	5. LEASE DESIGNATION AND SERIAL NUMBER: (see attached well list)
SUNDRY NOTICES AND REPORTS ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:  N/A
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	7. UNIT or CA AGREEMENT NAME:
drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.  1. TYPE OF WELL OIL WELL GAS WELL OTHER	8, WELL NAME and NUMBER:
2. NAME OF OPERATOR:	(see attached well list)  9. API NUMBER:
ENERVEST OPERATING, LLC	
3. ADDRESS OF OPERATOR: 1001 FANNIN, ST. STE 800 CITY HOUSTON STATE TX ZIP 77002 PHONE NUMBER: (713) 659-3500	10. FIELD AND POOL, OR WILDCAT:
4. LOCATION OF WELL	
FOOTAGES AT SURFACE: (see attached well list)	COUNTY:
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:	STATE: UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPO	ORT, OR OTHER DATA
TYPE OF SUBMISSION TYPE OF ACTION	F
NOTICE OF INTENT	REPERFORATE CURRENT FORMATION
(Submit in Duplicate)	SIDETRACK TO REPAIR WELL  TEMPORARILY ABANDON
	TUBING REPAIR
1/1/2014 CHANGE TO PREVIOUS PLANS OPERATOR CHANGE  CHANGE TUBING PLUG AND ABANDON	VENT OR FLARE
SUBSEQUENT REPORT CHANGE WELL NAME PLUG BACK	WATER DISPOSAL
(Submit Original Form Only)  CHANGE WELL STATUS  PRODUCTION (START/RESUME)	WATER SHUT-OFF
Dete of work completion:  COMMINGLE PRODUCING FORMATIONS RECLAMATION OF WELL SITE	OTHER:
CONVERT WELL TYPE RECOMPLETE - DIFFERENT FORMATION	
Rom 201/28 SIGNATURE	T THE WELLS LISTED ON THE ARRETT CORPORATION DODRESS BELOW.  TING, LLC  NAME (PLEASE PRINT)  SIGNATURE
Senior Vice President -  EH&S, Government and Regulatory Affairs  DIRECTOR - REGUL	LATORY N4040
NAME (PLEASE PRINT) RONNIE YOUNG TITLE DIRECTOR - RI	EGULATORY
SIGNATURE Parmes L Daving DATE 12/10/2013	
ADDOM	
(This space for State use on APPROVED	RECEIVED
JAN 2 8 2013 4 RV	JAN <b>07</b> 2014

DU OIL GAS & MINING OF COUNCIL

Well Name	Sec	TWN	RNG	API Number	Entity Lease	Well T	ype   Well Status	Unit
JACK CANYON UNIT 8-32	32	120S	<del>'</del>	4300730460	15167 State	WI	A	
JACK CYN U ST 14-32	32	120S	160E	4300730913	15166 State	WD	A	
PRICKLY PEAR U FED 12-24	24	120S	140E	4300730953	14467 Federal	WD	A	
PPU FED 11-23D-12-15	23	120S	150E	4300731440	Federal	GW	APD	PRICKLY PEAR
PPU FED 4-26D-12-15	23	120S	150E	4300731441	Federal	GW	APD	PRICKLY PEAR
PPU FED 14-23D-12-15	23	120S		4300731442	Federal	GW	APD	PRICKLY PEAR
PPU FED 12-23D-12-15	23	120S	150E	4300731443	Federal	GW	APD	PRICKLY PEAR
PPU FED 11-34D-12-16	34	120S	160E	4300731465	Federal	GW	APD	PETERS POINT
PPU FED 10-34D-12-16	34	120S	160E	4300731469	Federal	GW	APD	PETERS POINT
HORSE BENCH FED 4-27D-12-16	27	120S	160E	4300750092	Federal	GW	APD	
HORSE BENCH FED 5-27D-12-16	27	120S		4300750093	Federal	GW	APD	
PRICKLY PEAR U FED 12-7D-12-15	07	120S	150E	4300750094	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR U FED 11-7D-12-15	07	120S		4300750095	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR U FED 13-7D-12-15	07	120S		4300750096	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR U FED 14-7D-12-15	07	120S	150E	4300750097	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 11-8D-12-15	08	120S	150E	4300750124	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 12-8D-12-15	08	120S	150E	4300750125	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 13-8D-12-15	08	120S		4300750126	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 14-8D-12-15	08	120S		4300750127	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 9-21D-12-15	21	120S		4300750128	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 9A-21D-12-15	21	120S		4300750129	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 10-21D-12-15	21	120S		4300750130	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 10A-21D-12-15	21	120S		4300750131	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 15A-21D-12-15	21	120S	150E	4300750132	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 15X-21D-12-15	21	120S		4300750133	Federal .	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 16-21D-12-15	21	120S		4300750134	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 16A-21D-12-15	21	120S		4300750135	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 13A-22D-12-15	21	120S	150E	4300750148	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 1A-27D-12-15	22	120S	150E	4300750161	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 2A-27D-12-15	22	120S	150E	4300750162	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 3A-27D-12-15	22	120S	150E	4300750163	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 9A-22D-12-15	22	120S	150E	4300750164	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 10A-22D-12-15	22	120S	150E	4300750165	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 11A-22D-12-15	22	120S	150E	4300750166	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 12A-22D-12-15	22	120S	150E	4300750167	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 14A-22D-12-15	22	120S	150E	4300750168	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 15A-22D-12-15	22	120S	150E	4300750169	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 16A-22D-12-15	22	120S	150E	4300750170	Federal	GW	APD	PRICKLY PEAR
PETERS POINT UF 15X-36D-12-16	36	120S	160E	4300750178	Federal	GW	APD	PETERS POINT
PRICKLY PEAR UF 15A-15D-12-15	15	120S	150E	4300750180	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 11B-15D-12-15	15	120S	150E	4300750181	Federal	GW	APD	PRICKLY PEAR
PETERS POINT UF 10-1D-13-16	36	120S	160E	4300750182	Federal	GW	APD	PETERS POINT
PETERS POINT UF 9-1D-13-16	36	120S	160E	4300750183	Federal	GW	APD	PETERS POINT
PRICKLY PEAR UF 16A-15D-12-15	15	120S	150E	4300750184	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 3A-18D-12-15	07	120S	150E	4300750185	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 4A-18D-12-15	07	120S	150E	4300750186	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 11A-7D-12-15	07	120S	150E	4300750187	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 2-18D-12-15	07	120S	150E	4300750188	Federal	GW	APD	PRICKLY PEAR

PRICKLY PEAR UF 12A-7D-12-15	07	120S	150E 4300750189	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 13A-7D-12-15	07	120S	150E 4300750190	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 14A-7D-12-15	07	120S	150E 4300750191	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR FEDERAL 1-12D-12-14	12	120S	140E 4300750205	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 2-12D-12-14	12	120S	140E 4300750206	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 7-12D-12-14	12	120S	140E 4300750207	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 7A-12D-12-14	12	120S	140E 4300750208	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 8-12D-12-14	12	120S	140E 4300750209	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 4-7D-12-15	12	120S	140E 4300750210	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 5-7D-12-15	12	120S	140E 4300750211	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 8A-12D-12-14	12	120S	140E 4300750212	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 5A-7D-12-15	12	120S	140E 4300750213	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 7-14D-12-15	14	120S	150E 4300750214	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 7A-14D-12-15	14	120S	150E 4300750215	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 9-14D-12-15	14	120S	150E 4300750217	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 9A-14D-12-15	14	120S	150E 4300750218	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 10-14D-12-15	14	120S	150E 4300750219	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 10A-14D-12-15	14	120S	150E 4300750220	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 15A-14D-12-15	14	120S	150E 4300750222	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 16-14D-12-15	14	120S	150E 4300750223	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 16A-14D-12-15	14	120S	150E 4300750224	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 1A-18D-12-15	07	120S	150E 4300750225	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 2A-18D-12-15	07	120S	150E 4300750226	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 9A-7D-12-15	07	120S	150E 4300750227	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 10A-7D-12-15	07	120S	150E 4300750228	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 15A-7D-12-15	07	120S	150E 4300750229	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 16A-7D-12-15	07	120S	150E 4300750230	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 9A-12D-12-14	12	120S	140E 4300750233	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 10A-12D-12-14	12	120S	140E 4300750234	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 15A-12D-12-14	12	120S	140E 4300750235	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 12A-8D-12-15	08	120S	150E 4300750236	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 16A-12D-12-14	12	120S	140E 4300750237	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 11A-8D-12-15	08	120S	150E 4300750238	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 13A-8D-12-15	08	120S	150E 4300750239	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 14A-8D-12-15	08	120S	150E 4300750240	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 5A-8D-12-15	08	120S	150E 4300750260	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 6A-8D-12-15	08	120S	150E 4300750261	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 4-8D-12-15	08	120S	150E 4300750262	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 3-8D-12-15	08	120S	150E 4300750263	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 2-8D-12-15	08	120S	150E 4300750264	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 7A-8D-12-15	08	120S	150E 4300750265	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 7-8D-12-15	08	120S	150E 4300750266	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 5-8D-12-15	08	120S	150E 4300750267	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 6-8D-12-15	08	120S	150E 4300750268	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 10A-8D-12-15	08	120S	150E 4300750269	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 9A-8D-12-15	08	120S	150E 4300750270	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 8-8D-12-15	08	120S	150E 4300750271	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 1-8D-12-15	08	120S	150E 4300750272	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 8A-8D-12-15	08	120S	150E 4300750273	Federal	GW	APD	PRICKLY PEAR

PRICKLY PEAR UF 5-9D-12-15	09	120S	150E 4300750274	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 5A-9D-12-15	09	120S	150E 4300750275	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 4-9D-12-15	09	120S	150E 4300750276	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 3-9D-12-15	09	120S	150E 4300750277	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 6A-9D-12-15	09	120S	150E 4300750278	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 11-9D-12-15	09	120S	150E 4300750279	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 12A-9D-12-15	09	120S	150E 4300750280	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 6-9D-12-15	09	120S	150E 4300750281	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 11A-9D-12-15	09	120S	150E 4300750282	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR US 1X-16D-12-15	10	120S	150E 4300750283	State	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 5A-15D-12-15	10	120S	150E 4300750284	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 6A-15D-12-15	10	120S	150E 4300750285	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 3-15D-13-15	10	120S	150E 4300750286	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 15A-10D-12-15	15	120S	150E 4300750287	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 13-10D-12-15	10	120S	150E 4300750288	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 15-10D-12-15	15	120S	150E 4300750289	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 16A-10D-12-15	15	120S	150E 4300750290	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 9-10D-12-15	15	120S	150E 4300750291	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 14A-10D-12-15	10	120S	150E 4300750292	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 10-10D-12-15	15	120S	150E 4300750293	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 16-10D-12-15	15	120S	150E 4300750294	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 13-11D-12-15	15	120S	150E 4300750295	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 13A-11D-12-15	15	120S	150E 4300750296	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 12-11D-12-15	15	120S	150E 4300750297	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 13A-10D-12-15	10	120S	150E 4300750298	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 12-10D-12-15	10	120S	150E 4300750299	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 11-10D-12-15	10	120S	150E 4300750300	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 3A-15D-12-15	10	120S	150E 4300750301	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 12-14D-12-15	14	120S	150E 4300750302	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 4-15D-12-15	10	120S	150E 4300750303	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 4A-15D-12-15	10	120S	150E 4300750304	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 14-10D-12-15	10	120S	150E 4300750305	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 9A-17D-12-15	17	120S	150E 4300750306	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 8A-17D-12-15	17	120S	150E 4300750307	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 10A-17D-12-15	17	120S	150E 4300750308	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 3-7D-12-15	07	120S	150E 4300750309	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 16A-17D-12-15	17	120S	150E 4300750310	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 6-7D-12-15	07	120S	150E 4300750311	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 15A-17D-12-15	17	120S	150E 4300750312	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 6A-7D-12-15	07	120S	150E 4300750313	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 7A-7D-12-15	07	120S	150E 4300750314	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 8A-7D-12-15	07	120S	150E 4300750315	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 6X-17D-12-15	17	120S	150E 4300750316	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 11A-17D-12-15	17	120S	150E 4300750317	Federal	GW	APD	PRICKLÝ PEAR
PRICKLY PEAR UF 15B-17D-12-15	17	120S	150E 4300750318	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 8A-20D-12-15	20	120S	150E 4300750319	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 1-7D-12-15	07	120S	150E 4300750320	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 7A-20D-12-15	20	120S	150E 4300750321	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 9A-20D-12-15	20	120S		Federal	GW	APD	PRICKLY PEAR
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PRICKLY PEAR UF 10A-20D-12-15	20	120S	150E 4300750323	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 10-20D-12-15	20	120S	150E 4300750324	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 2-7D-12-15	07	120S	150E 4300750325	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 14A-20D-12-15	20	120S	150E 4300750326	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 16A-20D-12-15	20	120S	150E 4300750327	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 15A-20D-12-15	20	120S	150E 4300750328	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 8-7D-12-15	07	120S	150E 4300750329	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 15-20D-12-15	20	120S	150E 4300750330	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 7-7D-12-15	07	120S	150E 4300750331	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 6-10D-12-15	09	120S	150E 4300750332	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 5A-10D-12-15	09	120S	150E 4300750333	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 11A-10D-12-15	09	120S	150E 4300750334	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 6A-10D-12-15	09	120S	150E 4300750335	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 5-10D-12-15	09	120S	150E 4300750336	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 12A-10D-12-15	09	120S	150E 4300750338	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 3-10D-12-15	09	120S	150E 4300750339	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 4-10D-12-15	09	120S	150E 4300750340	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 8-9D-12-15	09	120S	150E 4300750341	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 8A-9D-12-15	09	120S	150E 4300750342	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 7A-9D-12-15	09	120S	150E 4300750343	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 7-9D-12-15	09	120S	150E 4300750344	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 1-9D-12-15	09	120S	150E 4300750345	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 2-9D-12-15	09	120S	150E 4300750346	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 1-24D-12-1	24	120S	150E 4300750348	Federal	GW	APD	PRICKLY PEAR
PRICKLY PEAR UF 9-13D-12-15	13	120S	150E 4300750349	Federal	GW	APD	PRICKLY PEAR
HORSE BENCH FED 4-20D-12-17	19	120S	170E 4300750350	Federal	GW	APD	
Horse Bench Federal 16-18D-12-17	19	120S	170E 4300750351	Federal	GW	APD	
PPU FED 9-34D-12-16	34	120S	160E 4300731430	17225 Federal	GW	OPS	PETERS POINT
PPU FED 15-35D-12-16	35	120S	160E 4300731475	2470 Federal	GW	OPS	PETERS POINT
PETERS POINT U FED 12A-6D-13-17	31	120S	170E 4300750034	2470 Federal	GW	OPS	PETERS POINT
PETERS POINT U FED 11A-31D-12-17	31	120S	170E 4300750036	2470 Federal	GW	OPS	PETERS POINT
PRICKLY PEAR U FED 7-21D-12-15	21	120S	150E 4300750055	14794 Federal	GW	OPS	PRICKLY PEAR
PETERS POINT U FED 9-6D-13-17	06	130S	170E 4300750120	2470 Federal	GW	OPS	PETERS POINT
PETERS POINT U FED 14-6D-13-17	06	130S	170E 4300750121	2470 Federal	GW	OPS	PETERS POINT
PETERS POINT U FED 15-6D-13-17	06	130S	170E 4300750121	2470 Federal	GW	OPS	PETERS POINT
PETERS POINT UF 2-7D-13-17	06	130S	170E 4300750149	2470 Federal	GW	OPS	PETERS POINT
PETERS POINT UF 1-7D-13-17	06	130S	170E 4300750150	2470 Federal	GW	OPS	PETERS POINT
PRICKLY PEAR US 1A-16D-12-15	09	120S	150E 4300750192	14794 State	GW	OPS	PRICKLY PEAR
PRICKLY PEAR US 2A-16D-12-15	09	120S	150E 4300750192	14794 State	GW	OPS	PRICKLY PEAR
PRICKLY PEAR US 2-16D-12-15	09	120S	150E 4300750194	14794 State	GW	OPS	PRICKLY PEAR
PRICKLY PEAR UF 9A-9D-12-15	09	120S	150E 4300750194	14794 Federal	GW	OPS	PRICKLY PEAR
PRICKLY PEAR UF 10-9D-12-15	09	120S	150E 4300750190	14794 Federal	GW	OPS	PRICKLY PEAR
	09	120S	150E 4300750197	14794 Federal	GW	OPS	PRICKLY PEAR
PRICKLY PEAR UF 10A-9D-12-15					GW	OPS	PRICKLY PEAR
PRICKLY PEAR UF 14-9D-12-15	09	120S	150E 4300750199	14794 Federal	GW	OPS	PRICKLY PEAR PRICKLY PEAR
PRICKLY PEAR UF 14A-9D-12-15	09	120S	150E 4300750200	14794 Federal		OPS	PRICKLY PEAR PRICKLY PEAR
PRICKLY PEAR UF 15-9D-12-15	09	120S	150E 4300750201	14794 Federal	GW		
PRICKLY PEAR UF 15A-9D-12-15	09	120S	150E 4300750203	14794 Federal	GW	OPS	PRICKLY PEAR
PRICKLY PEAR UF 16A-9D-12-15	09	120S	150E 4300750204	14794 Federal	GW	OPS	PRICKLY PEAR
SHARPLES 1 GOVT PICKRELL	11	120S	150E 4300716045	7030 Federal	GW	. P	

STONE CABIN UNIT 1	13	120S	140E 4300716542	12052 Federal	GW	P	
STONE CABIN FED 1-11	11	120S	140E 4300730014	6046 Federal	GW	P	
STONE CABIN FED 2-B-27	27	120S	150E 4300730018	14794 Federal	GW	P	PRICKLY PEAR
JACK CANYON 101-A	33	120S	160E 4300730049	2455 Federal	GW	P	
PETERS POINT ST 2-2-13-16	02	130S	160E 4300730521	14387 State	GW	P	
PRICKLY PEAR ST 16-15	16	120S	150E 4300730522	14794 State	GW	P	PRICKLY PEAR
PETERS POINT U FED 36-2	36	120S	160E 4300730761	2470 Federal	GW	P	PETERS POINT
PETERS POINT U FED 36-3	36	120S	160E 4300730762	2470 Federal	GW	P	PETERS POINT
PETERS POINT U FED 36-4	36	120S	160E 4300730763	2470 Federal	GW	P	PETERS POINT
PETERS POINT U FED 14-25D-12-16	36	120S	160E 4300730764	2470 Federal	GW	P	PETERS POINT
HUNT RANCH 3-4	03	120S	150E 4300730775	13158 State	GW	Ρ.	
PETERS POINT U FED 4-31D-12-17	36	120S	160E 4300730810	2470 Federal	GW	P	PETERS POINT
PETERS POINT U FED 16-26D-12-16	36	120S	160E 4300730812	2470 Federal	GW	P	PETERS POINT
PRICKLY PEAR UNIT 13-4	13	120S	140E 4300730825	14353 Federal	GW	P	
PRICKLY PEAR UNIT 21-2	21	120S	150E 4300730828	14794 Federal	GW	P	PRICKLY PEAR
PETERS POINT U FED 6-7D-13-17	06	130S	170E 4300730859	14692 Federal	GW	P	PETERS POINT
PETERS POINT ST 4-2-13-16	02	130S	160E 4300730866	14386 State	GW	P	
PRICKLY PEAR U ST 13-16	16	120S	150E 4300730933	14794 State	GW	P	PRICKLY PEAR
PRICKLY PEAR U ST 11-16	16	120S	150E 4300730944	14794 State	GW	P	PRICKLY PEAR
PRICKLY PEAR U ST 7-16	16	120S	150E 4300730945	14794 State	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 7-25	25	120S	150E 4300730954	14794 Federal	GW	P	PRICKLY PEAR
PETERS POINT U FED 16-35	35	120S	160E 4300730965	2470 Federal	GW	P	PETERS POINT
PETERS POINT U FED 11-6-13-17	06	130S	170E 4300730982	2470 Federal	GW	P	PETERS POINT
PETERS POINT U FED 16-6D-13-17	06	130S	170E 4300731004	2470 Federal	GW	P	PETERS POINT
PETERS POINT U FED 16-31D-12-17	06	130S	170E 4300731005	2470 Federal	GW	P	PETERS POINT
PRICKLY PEAR U FED 5-13-12-14	13	120S	140E 4300731008	14897 Federal	GW	P	·
PETERS POINT U FED 12-31D-12-17	36	120S	160E 4300731009	2470 Federal	GW	P	PETERS POINT
PETERS POINT U FED 2-36D-12-16	36	120S	160E 4300731010	2470 Federal	GW	P	PETERS POINT
PETERS POINT U FED 9-36-12-16	36	120S	160E 4300731011	2470 Federal	GW	P	PETERS POINT
PRICKLY PEAR U ST 36-06	36	120S	150E 4300731018	14794 State	GW	P	PRICKLY PEAR
PETERS POINT U FED 8-35D-12-16	36	120S	160E 4300731024	2470 Federal	GW	P	PETERS POINT
PETERS POINT U FED 4-12D-13-16	02	130S	160E 4300731049	14692 Federal	GW	P	PETERS POINT
PETERS POINT ST 5-2D-13-16 DEEP	02	130S	160E 4300731056	15909 State	GW	P	
PRICKLY PEAR U FED 13-23-12-15	23	120S	150E 4300731073	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 1-27D-12-15	23	120S	150E 4300731074	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 3-26D-12-15	23	120S	150E 4300731075	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 15-22D-12-15	23	120S	150E 4300731076	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 3-28D-12-15	21	120S	150E 4300731121	14794 Federal	GW	P	PRICKLY PEAR
PETERS POINT U FED 2-12D-13-16	06	130S	170E 4300731158	14692 Federal	GW	P	PETERS POINT
PRICKLY PEAR U FED 15-21-12-15	21	120S	150E 4300731164	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 7-28D-12-15	21	120S	150E 4300731165	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 13-21D-12-15	21	120S	150E 4300731166	14794 Federal	GW	P	PRICKLY PEAR
PETERS POINT U FED 10-36D-12-16	36	120S	160E 4300731174	2470 Federal	GW	P	PETERS POINT
PETERS POINT U FED 12-36D-12-16	36	120S	160E 4300731175	2470 Federal	GW	P	PETERS POINT
PRICKLY PEAR U FED 15-17-12-15	17	120S	150E 4300731183	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 11-17D-12-15	17	120S	150E 4300731184	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 7-22D-12-15	22	120S	150E 4300731186	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 3-22-12-15	22	120S	150E 4300731187	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 5-22D-12-15	22	120S	150E 4300731188	14794 Federal	GW	P	PRICKLY PEAR

PRICKLY PEAR 11-15D-12-15	22	120S	150E 4300731189	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 9-18D-12-15	18	120S	150E 4300731192	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 15-18-12-15	18	120S	150E 4300731193	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 16-27D-12-15	27	120S	150E 4300731194	15569 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 12-27D-12-15	27	120S	150E 4300731195	15568 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 10-27-12-15	27	120S	150E 4300731196	15570 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 9-20D-12-15	20	120S	150E 4300731197	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 7-20-12-15	20	120S	150E 4300731198	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 1-20-12-15	20	120S	150E 4300731206	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U ST 2-36-12-15	36	120S	150E 4300731226	15719 State	GW	P	
PRICKLY PEAR U ST 4-36-12-15	36	120S	150E 4300731227	14794 State	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 4-27D-12-15	22	120S	150E 4300731237	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 13-22-12-15	22	120S	150E 4300731238	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 3-27D-12-15	22	120S	150E 4300731239	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U ST 9-16-12-15	16	120S	150E 4300731240	14794 State	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 9-28D-12-15	28	120S	150E 4300731241	16028 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 5-27D-12-15	28	120S	150E 4300731242	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 1-28-12-15	28	120S	150E 4300731243	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 8-28D-12-15	28	120S	150E 4300731244	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U ST 1-16-12-15	16	120S	150E 4300731245	14794 State	GW	P	PRICKLY PEAR
PPU FED 11-18D-12-15	18	120S	150E 4300731257	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 11-20D-12-15	20	120S	150E 4300731258	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 4-25D-12-15	25	120S	150E 4300731259	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 12-25D-12-15	25	120S	150E 4300731260	16068 Federal	GW	P	PRICKLY PEAR
PPU FED 15-6D-13-17	06	130S	170E 4300731261	16103 Federal	GW	P	PETERS POINT
PP UF 3-36-12-16	36	120S	160E 4300731271	2470 Federal	GW	P	PETERS POINT
PP UF 6-36-12-16	36	120S	160E 4300731272	2470 Federal	GW	P	PETERS POINT
PPU FED 6-35D-12-16	35	120S	160E 4300731275	2470 Federal	GW	P	PETERS POINT
PPU FED 14-26D-12-16	26	120S	160E 4300731277	2470 Federal	GW	P	PETERS POINT
PPU FED 8-34-12-16	34	120S	160E 4300731279	2470 Federal	GW	P	PETERS POINT
PP ST 8-2D-13-16 (DEEP)	02	130S	160E 4300731280	16069 State	GW	P	
PPU FED 6-34D-12-16	34	120S	160E 4300731281	2470 Federal	GW	P	PETERS POINT
PPU FED 14-26D-12-15	35	120S	150E 4300731282	16224 Federal	GW	P	PRICKLY PEAR
PPU FED 2-35-12-15	35	120S	150E 4300731283	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 10-26D-12-15	35	120S	150E 4300731284	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 9-17-12-15	17	120S	150E 4300731287	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 1-17D-12-15	17	120S	150E 4300731288	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 7-17D-12-15	17	120S	150E 4300731289	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 7-1D-13-16 ULTRA DEEP	06	130S	170E 4300731293	14692 Federal	GW	P	PETERS POINT
PPU FED 1-18D-12-15	18	120S	150E 4300731294	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 7-18D-12-15	18	120S	150E 4300731295	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 5-17D-12-15	18	120S	150E 4300731296	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 10-17D-12-15	17	120S	150E 4300731307	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 8-17D-12-15	17	120S	150E 4300731308	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 12-17D-12-15	17	120S	150E 4300731309	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 13-17D-12-15	17	120S	150E 4300731310	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 14-17D-12-15	17	120S	150E 4300731311	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 16-18D-12-15	17	120S	150E 4300731312	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 8-18D-12-15	18	120S	150E 4300731313	14794 Federal	GW	P	PRICKLY PEAR

PPU FED 3-18D-12-15	18	120S	150E 4300731314	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 4-18-12-15	18	120S	150E 4300731315	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 5-18D-12-15	18	120S	150E 4300731316	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 6-18D-12-15	18	120S	150E 4300731317	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 16-27-12-16	27	120S	160E 4300731318	2470 Federal	GW	P	PETERS POINT
PPU FED 10-27D-12-16	27	120S	160E 4300731319	2470 Federal	GW	P	PETERS POINT
PPU FED 2-34D-12-16	34	120S	160E 4300731320	2470 Federal	GW	P	PETERS POINT
PPU FED 16-17D-12-15	17	120S	150E 4300731321	14794 Federal	GW	P	PRICKLY PEAR
PPU ST 15-16D-12-15	16	120S	150E 4300731322	14794 State	GW	P	PRICKLY PEAR
PPU ST 16-16D-12-15	16	120S	150E 4300731323	14794 State	GW	P	PRICKLY PEAR
PPU ST 14-16D-12-15	16	120S	150E 4300731324	14794 State	GW	P	PRICKLY PEAR
PPU FED 2-7D-13-17 DEEP	06	130S	170E 4300731326	14692 Federal	GW	P	PETERS POINT
PPU FED 3-21D-12-15	21	120S	150E 4300731328	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 4-21D-12-15	21	120S	150E 4300731329	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 2-35D-12-16	35	120S	160E 4300731345	2470 Federal	GW	P	PETERS POINT
PPU FED 7-35D-12-16	35	120S	160E 4300731346	2470 Federal	GW	P	PETERS POINT
PPU FED 4-35D-12-16	35	120S	160E 4300731347	2470 Federal	GW	P	PETERS POINT
PPU FED 7-36D-12-16	36	120S	160E 4300731348	2470 Federal	GW	P	PETERS POINT
PPU FED 11-36D-12-16	36	120S	160E 4300731349	2470 Federal	GW	P	PETERS POINT
PPU FED 15-25D-12-16	36	120S	160E 4300731351	2470 Federal	GW	P	PETERS POINT
PPU FED 13-25D-12-16	36	120S	160E 4300731352	2470 Federal	GW	P	PETERS POINT
PPU FED 4-36D-12-16	36	120S	160E 4300731353	2470 Federal	GW	P	PETERS POINT
PPU FED 13-15D-12-15	22	120S	150E 4300731358	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 14-15D-12-15	22	120S	150E 4300731359	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 4-22D-12-15	22	120S	150E 4300731360	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 6-22D-12-15	22	120S	150E 4300731361	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 2-28D-12-15	28	120S	150E 4300731362	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 16X-21D-12-15	28	120S	150E 4300731363	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 5A-27D-12-15	28	120S	150E 4300731364	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 1-35D-12-16	35	120S	160E 4300731365	2470 Federal	GW	P	PETERS POINT
PPU FED 1A-28D-12-15	28	120S	150E 4300731368	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 14A-18D-12-15	18	120S	150E 4300731393	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 10-18D-12-15	18	120S	150E 4300731394	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 15A-18D-12-15	18	120S	150E 4300731395	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 16A-18D-12-15	18	120S	150E 4300731396	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 12-22D-12-15	22	120S	150E 4300731398	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 11-22D-12-15	22	120S	150E 4300731399	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 14-22D-12-15	22	120S	150E 4300731400	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 4A-27D-12-15	22	120S	150E 4300731401	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 13-26D-12-16	26	120S	160E 4300731403	2470 Federal	GW	P	PETERS POINT
PPU FED 15-26D-12-16	26	120S	160E 4300731404	2470 Federal	GW	P	PETERS POINT
PPU FED 3-35D-12-16	26	120S	160E 4300731405	2470 Federal	GW	P	PETERS POINT
PPU FED 10-26D-12-16	26	120S	160E 4300731406	2470 Federal	GW	P	PETERS POINT
PPU FED 11-26D-12-16	26	120S	160E 4300731407	2470 Federal	GW	P	PETERS POINT
PPU FED 12-26D-12-16	26	120S	160E 4300731408	2470 Federal	GW	P	PETERS POINT
PPU FED 11-27D-12-16	27	120S	160E 4300731409	2470 Federal	GW	P	PETERS POINT
PPU FED 15-27D-12-16	27	120S	160E 4300731410	2470 Federal	GW	P	PETERS POINT
PPU FED 9-27D-12-16	27	120S	160E 4300731411	2470 Federal	GW	P	PETERS POINT
PPU FED 11-21D-12-15	21	120S	150E 4300731412	14794 Federal	GW	P	PRICKLY PEAR

PPU FED 6-21D-12-15	21	120S	150E 4300731413	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 12-21D-12-15	21	120S	150E 4300731414	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 8-20D-12-15	20	120S	150E 4300731419	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 1A-20D-12-15	20	120S	150E 4300731420	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 2-20D-12-15	20	120S	150E 4300731421	14794 Federal	GW	P	PRICKLY PEAR
PPU ST 7A-16D-12-15	16	120S	150E 4300731422	14794 State	GW	P	PRICKLY PEAR
PPU ST 6-16D-12-15	16	120S	150E 4300731423	14794 State	GW	P	PRICKLY PEAR
PPU ST 10A-16D-12-15	16	120S	150E 4300731424	14794 State	GW	P	PRICKLY PEAR
PPU ST 3-16D-12-15	16	120S	150E 4300731425	14794 State	GW	P	PRICKLY PEAR
PPU FED 1-34D-12-16	34	120S	160E 4300731427	2470 Federal	GW	P	PETERS POINT
PPU FED 7-34D-12-16	34	120S	160E 4300731428	2470 Federal	GW	P	PETERS POINT
PPU FED 5-35D-12-16	34	120S	160E 4300731429	2470 Federal	GW	P	PETERS POINT
PPU FED 5-21D-12-15	21	120S	150E 4300731451	14794 Federal	GW	P	PRICKLY PEAR
PPU ST 8-16D-12-15	16	120S	150E 4300731455	14794 State	GW	P	PRICKLY PEAR
PPU ST 12-16D-12-15	16	120S	150E 4300731456	14794 State	GW	P	PRICKLY PEAR
PPU ST 12A-16D-12-15	16	120S	150E 4300731457	14794 State	GW	P	PRICKLY PEAR
PPU ST 15A-16D-12-15	16	120S	150E 4300731458	14794 State	GW	P	PRICKLY PEAR
PPU ST 10-16D-12-15	16	120S	150E 4300731459	14794 State	GW	P	PRICKLY PEAR
PPU ST 11A-16D-12-15	16	120S	150E 4300731460	14794 State	GW	P	PRICKLY PEAR
PPU ST 13A-16D-12-15	16	120S	150E 4300731461	14794 State	GW	P	PRICKLY PEAR
PPU FED 3-34D-12-16	34	120S	160E 4300731466	2470 Federal	GW	P	PETERS POINT
PPU FED 5-34D-12-16	34	120S	160E 4300731467	2470 Federal	GW	P	PETERS POINT
PPU FED 4-34D-12-16	34	120S	160E 4300731468	2470 Federal	GW	P	PETERS POINT
PPU FED 10-7D-12-15	07	120S	150E 4300731470	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 15-7D-12-15	07	120S	150E 4300731471	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 9-7D-12-15	07	120S	150E 4300731472	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 16-7D-12-15	07	120S	150E 4300731473	14794 Federal	GW	P	PRICKLY PEAR
PPU FED 10-35D-12-16	35	120S	160E 4300731474	2470 Federal	GW	P	PETERS POINT
PPU FED 9-35D-12-16	35	120S	160E 4300731476	2470 Federal	GW	P	PETERS POINT
PPU ST 6A-16D-12-15	16	120S	150E 4300731477	14794 State	GW	P	PRICKLY PEAR
PPU ST 4-16D-12-15	16	120S	150E 4300731478	14794 State	GW	P	PRICKLY PEAR
PPU ST 4A-16D-12-15	16	120S	150E 4300731479	14794 State	GW	P	PRICKLY PEAR
PPU ST 5A-16D-12-15	16	120S	150E 4300731480	14794 State	GW	P	PRICKLY PEAR
PPU ST 3A-16D-12-15	16	120S	150E 4300731481	14794 State	GW	P	PRICKLY PEAR
PPU ST 16A-16D-12-15	16	120S	150E 4300731484	14794 State	GW	P	PRICKLY PEAR
PPU ST 9A-16D-12-15	16	120S	150E 4300731485	14794 State	GW	P	PRICKLY PEAR
PPU ST 16B-16D-12-15	16	120S	150E 4300731514	14794 State	GW	P	PRICKLY PEAR
PPU ST 14B-16D-12-15	16	120S	150E 4300731515	14794 State	GW	P	PRICKLY PEAR
PPU ST 13B-16D-12-15	16	120S	150E 4300731516	14794 State	GW	P	PRICKLY PEAR
PETERS POINT U FED 9-26D-12-16	25	120S	160E 4300750021	2470 Federal	GW	P	PETERS POINT
PETERS POINT U FED 11-25D-12-16	25	120S	160E 4300750022	2470 Federal	GW	P	PETERS POINT
PETERS POINT U FED 10-31D-12-17	31	120S	170E 4300750023	2470 Federal	GW	P	PETERS POINT
PETERS POINT U FED 11-31D-12-17	31	120S	170E 4300750024	2470 Federal	GW	P	PETERS POINT
PETERS POINT U FED 13A-31D-12-17	31	120S	170E 4300750025	2470 Federal	GW	P	PETERS POINT
PETERS POINT U FED 13-31D-12-17	31	120S	170E 4300750026	2470 Federal	GW	P	PETERS POINT
PETERS POINT U FED 14-31D-12-17	31	120S	170E 4300750027	2470 Federal	ĞW	P	PETERS POINT
PETERS POINT U FED 14A-31D-12-17	31	120S	170E 4300750028	2470 Federal	GW	P	PETERS POINT
PETERS POINT U FED 12-25D-12-16	25	120S	160E 4300750029	2470 Federal	GW	P	PETERS POINT
PETERS POINT U FED 12-6D-13-17	31	120S	170E 4300750033	2470 Federal	GW	P	PETERS POINT

PETERS POINT U FED 10-25D-12-16	25	120S	160E 4300750035	2470 Federal	GW	P	PETERS POINT
PETERS POINT U FED 13-36D-12-16	36	120S	160E 4300750037	2470 Federal	GW	P	PETERS POINT
PETERS POINT U FED 15-36D-12-16	36	120S	160E 4300750038	2470 Federal	GW	P	PETERS POINT
PETERS POINT U FED 11-1D-13-16	36	120S	160E 4300750039	2470 Federal	GW	P	PETERS POINT
PETERS POINT U FED 12-1D-13-16	36	120S	160E 4300750040	2470 Federal	GW	P	PETERS POINT
PRICKLY PEAR U FED 9-22D-12-15	22	120S	150E 4300750041	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 10-22D-12-15	22	120S	150E 4300750042	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 16-22D-12-15	22	120S	150E 4300750043	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 2-27D-12-15	22	120S	150E 4300750044	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 16-15D-12-15	15	120S	150E 4300750045	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 15-15D-12-15	15	120S	150E 4300750046	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 10-15D-12-15	15	120S	150E 4300750047	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 9-15D-12-15	15	120S	150E 4300750048	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 11A-15D-12-15	15	120S	150E 4300750049	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 1-21D-12-15	21	120S	150E 4300750050	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 2-21D-12-15	21	120S	150E 4300750051	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 2A-21D-12-15	21	120S	150E 4300750052	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 4A-22D-12-15	21	120S	150E 4300750052	14794 Federal	GW	P	PRICKLY PEAR
	21	120S	150E 4300750054	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 5A-22D-12-15	21	120S	150E 4300750054	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 7A-21D-12-15	21	120S	150E 4300750057	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 8-21D-12-15	21	120S	150E 4300750057	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 8A-21D-12-15				14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 16-8D-12-15	08	120S	150E 4300750059	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 15-8D-12-15	08	120S	150E 4300750060		GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 2-17D-12-15	08	120S	150E 4300750061	14794 Federal	GW GW	r P	PRICKLY PEAR
PRICKLY PEAR U FED 1A-17D-12-15	08	120S	150E 4300750062	14794 Federal	GW	P	PETERS POINT
PETERS POINT U FED 3A-34D-12-16	27	120S	160E 4300750063	2470 Federal		r P	PETERS POINT
PETERS POINT U FED 4A-34D-12-16	27	120S	160E 4300750064	2470 Federal	GW		PETERS POINT
PETERS POINT U FED 12-27D-12-16	27	120S	160E 4300750065	2470 Federal	GW	P	PETERS POINT
PETERS POINT U FED 13-27D-12-16	27	120S	160E 4300750066	2470 Federal	GW	P	PETERS POINT
PETERS POINT U FED 13A-27D-12-16	27	120S	160E 4300750067	2470 Federal	GW	P	PETERS POINT
PETERS POINT U FED 14-27D-12-16	27	120S	160E 4300750068	18204 Federal	GW	P	DETERG BOINT
PETERS POINT U FED 14A-27D-12-16	27	120S	160E 4300750069	2470 Federal	GW	P	PETERS POINT
PRICKLY PEAR U FED 1-22D-12-15	22	120S	150E 4300750076	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 2-22D-12-15	22	120S	150E 4300750077	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 8-22D-12-15	22	120S	150E 4300750078	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 3-17D-12-15	17	120S	150E 4300750079	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 3A-17D-12-15	17	120S	150E 4300750080	14794 Federal	GW	P -	PRICKLY PEAR
PRICKLY PEAR U FED 4-17D-12-15	17	120S	150E 4300750081	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 4A-17D-12-15	17	120S	150E 4300750082	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 5A-17D-12-15	17	120S	150E 4300750083	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR Ú FED 6-17D-12-15	17	120S	150E 4300750084	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 6A-17D-12-15	17	120S	150E 4300750085	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 7A-17D-12-15	17	120S	150E 4300750086	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 12A-17D-12-15	17	120S	150E 4300750087	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 9-12D-12-14	12	120S	140E 4300750088	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 10-12D-12-14	12	120S	140E 4300750089	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 15-12D-12-14	12	120S	140E 4300750090	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 16-12D-12-14	12	120S	140E 4300750091	14794 Federal	GW	P	PRICKLY PEAR

PRICKLY PEAR U FED 3-20D-12-15	20	120S	150E 4300750098	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 3A-20D-12-15	20	120S	150E 4300750099	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 4-20D-12-15	20	120S	150E 4300750100	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 4A-20D-12-15	20	120S	150E 4300750101	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 5-20D-12-15	20	120S	150E 4300750102	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 6-20D-12-15	20	120S	150E 4300750104	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 6A-20D-12-15	20	120S	150E 4300750105	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 11A-20D-12-15	20	120S	150E 4300750106	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR U FED 12A-20D-12-15	20	120S	150E 4300750107	14794 Federal	GW	P	PRICKLY PEAR
PETERS POINT U FED 5-31D-12-17	36	120S	160E 4300750109	2470 Federal	GW	P	PETERS POINT
PETERS POINT U FED 6-31D-12-17	36	120S	160E 4300750116	2470 Federal	GW	P	PETERS POINT
PETERS POINT U FED 9X-36D-12-16	36	120S	160E 4300750117	2470 Federal	GW	P	PETERS POINT
PETERS POINT U FED 1-36D-12-16	36	120S	160E 4300750118	2470 Federal	GW	P	PETERS POINT
PETERS POINT U FED 10-6D-13-17	06	130S	170E 4300750119	2470 Federal	GW	P	PETERS POINT
PETERS POINT U FED 15-31D-12-17	06	130S	170E 4300750123	2470 Federal	GW	P	PETERS POINT
PRICKLY PEAR UF 7A-18D-12-15	17	120S	150E 4300750136	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR UF 8A-18D-12-15	17	120S	150E 4300750137	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR UF 9A-18D-12-15	17	120S	150E 4300750138	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR UF 12-20D-12-15	20	120S	150E 4300750139	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR UF 16A-8D-12-15	08	120S	150E 4300750140	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR UF 15A-8D-12-15	08	120S	150E 4300750141	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR UF 13A-9D-12-15	08	120S	150E 4300750142	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR UF 13-9D-12-15	08	120S	150E 4300750142	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR OF 13-9D-12-15 PRICKLY PEAR UF 12-9D-12-15	08	120S	150E 4300750144	14794 Federal	GW	P	PRICKLY PEAR
	08	120S	150E 4300750145	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR UF 10-8D-12-15	08	120S	150E 4300750145	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR UF 9-8D-12-15	08	120S	150E 4300750147	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR UF 2A-17D-12-15			170E 4300750151	2470 Federal	GW	P	PETERS POINT
PETERS POINT UF 12-5D-13-17	06	1308	170E 4300750151	2470 Federal	GW	P	PETERS POINT
PETERS POINT UF 13-5D-13-17	06	130S	4	18347 Federal	GW	r P	PETERS POINT
PETERS POINT UF 13-30D-12-17	30	120S	170E 4300750153	18350 Federal	GW	r P	PETERS POINT
PETERS POINT UF 14-30D-12-17	30	120S	170E 4300750154			P P	PETERS POINT
PETERS POINT UF 12-30D-12-17	30	1208	170E 4300750155	18346 Federal	GW	_	PETERS POINT PETERS POINT
PETERS POINT UF 11-30D-12-17	30	120S	170E 4300750156	18348 Federal	GW	P	
PETERS POINT UF 3-31D-12-17	30	120S	170E 4300750157	2470 Federal	GW	P	PETERS POINT
PETERS POINT UF 2-31D-12-17	30	120S	170E 4300750158	18349 Federal	GW	P	PETERS POINT
PETERS POINT UF 16-25D-12-16	30	120S	170E 4300750159	2470 Federal	GW	P	PETERS POINT
PETERS POINT UF 9-25D-12-16	30	120S	170E 4300750160	2470 Federal	GW	P	PETERS POINT
PRICKLY PEAR UF 1A-22D-12-15	22	120S	150E 4300750171	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR UF 6A-22D-12-15	22	120S	150E 4300750173	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR UF 7A-22D-12-15	22	120S	150E 4300750174	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR UF 8A-22D-12-15	22	120S	150E 4300750175	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR UF 14B-15D-12-15	22	120S	150E 4300750176	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR UF 9-9D-12-15	09	120S	150E 4300750195	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR UF 16-9D-12-15	09	120S	150E 4300750202	14794 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR UF 8-14D-12-15	14	120S	150E 4300750216	18289 Federal	GW	P	PRICKLY PEAR
PRICKLY PEAR UF 15-14D-12-15	14	120S	150E 4300750221	18290 Federal	GW	P	PRICKLY PEAR
PETERS POINT UF 7X-36D-12-16	36	120S	160E 4300750231	2470 Federal	GW	P	PETERS POINT
PETERS POINT UF 8-36D-12-16	36	120S	160E 4300750232	2470 Federal	GW	P	PETERS POINT
PETERS POINT ST 6-2D-13-16	02	130S	160E 4300731017	14472 State	D	PA	

PTS 33-36 STATE	36	110S	140E 4301330486	6190 State	GW	PA	ARGYLE
PRICKLY PEAR U FED 10-4	10	120S	140E 4300730823	14462 Federal	GW	S	
PRICKLY PEAR U FASSELIN 5-19-12-15	19	120S	150E 4300730860	14853 Fee	GW	S	
PRICKLY PEAR U ST 5-16	16	120S	150E 4300730943	14794 State	GW	S	PRICKLY PEAR
PRICKLY PEAR U FED 7-33D-12-15	33	120S	150E 4300730985	14771 Federal	GW	S	
PETERS POINT ST 8-2D-13-16	02	130S	160E 4300731016	14471 State	GW	S	
PPU FED 4-35D-12-15	35	120S	150E 4300731285	16223 Federal	GW	S	PRICKLY PEAR
PPU FED 5-36D-12-16	36	120S	160E 4300731350	2470 Federal	GW	S	PETERS POINT
PRICKLY PEAR U FED 5A-20D-12-15	20	120S	150E 4300750103	14794 Federal	GW	S	PRICKLY PEAR
PRICKLY PEAR U FED 13A-17D-12-15	20.	120S	150E 4300750108	14794 Federal	GW	S	PRICKLY PEAR
PRICKLY PEAR UF 2A-22D-12-15	22	120S	150E 4300750172	14794 Federal	GW	S	PRICKLY PEAR